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WEEKLY WEATHER AND CROP BULLETIN

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration, National Weather Service

U.S. DEPARTMENT OF AGRICULTURE
Statistical Reporting Service and World Agricultural Outlook Board

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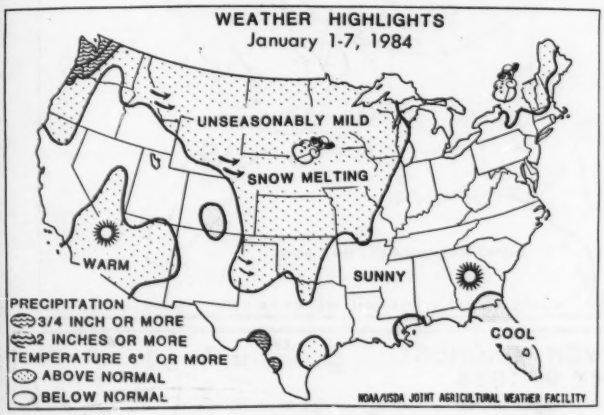
National Weather Summary

January 1 to 7



HIGHLIGHTS: Westerly winds, blowing downslope out of the Rockies, brought a drastic warming to the Plains. Average temperatures ranged from 24°F above normal in the northern Plains to 12°F above normal in the central Plains. Snow cover either disappeared or was reduced, leaving winter grains vulnerable to subsequent cold weather. Alternate freeze-thaw conditions in the central and southern Plains may have caused some frost heaving. Moderate rain, combined with snowmelt, caused flooding in western Washington. Precipitation was generally light over most of the Nation.

SUNDAY...Snow fell from southeastern Nebraska through the Great Lakes region and into New York. A few rain showers fell in central Texas and some snow fell in New Mexico. Temperatures were generally much warmer than the previous week, but early morning temperatures were below freezing everywhere, except along the west coast, in southern Texas, and in southern Florida. Daytime temperatures rose to above freezing in all but the northern edge of the Plains, the northern Rockies, the Great Lakes region, and the Northeast.

MONDAY...Light snow continued from the eastern Great Lakes to the central Appalachians and into New England. Rainshowers fell along a line from south-central Texas to southeastern Arizona. Some heavy showers fell in Arizona. Rain fell along the coasts of Washington and Oregon, and snow fell in the Cascades and to the northern Rockies. Morning temperatures were still below freezing in many areas, but high temperatures rose to the forties in much of the Plains.

TUESDAY...Rain continued along the coasts of Washington and Oregon and snow reached inland to the Rockies. Temperatures remained above freezing in central Montana. Light freezing rain plagued the upper Midwest. The January thaw continued. Temperatures remained below freezing over the central Plateau, but temperatures throughout most of the rest of the Nation rose to above freezing. Temperatures reached 50°F in parts of Montana.

WEDNESDAY...Rain and snowmelt in the Pacific Northwest caused local flooding as warm temperatures pushed into the northern Rockies. The high temperature at Havre, Montana, rose to 54°F -- just eleven days earlier the low temperature at Havre sank to -50°F. Light rain fell intermittently from the Southeast and Tennessee Valley to New England.

THURSDAY...Light snow was scattered from Wisconsin to New England, while freezing rain fell from Ohio into Pennsylvania, and light rain covered parts of the East Coast States. Westerly winds blowing downslope from the Rockies kept the Plains warm. Temperatures in the Texas High Plains rose to the seventies, and to the fifties northward to Montana.

FRIDAY...Patches of rain, drizzle, and snow continued through the Appalachians and Northeast. Freezing drizzle and snow fell in the central intermountain area of the West and light rain reached from Washington into Montana. Freezing temperatures at night were measured over the central Plateau, the western side of the central Rockies, the northern Plains, the northern Great Lakes area, and spotty areas in the East Coast States. Daytime temperatures were warm in all but the central Plateau and parts of the Rockies. (continued on p. 23)

Contents

	Page
National Weather Summary	1
Precipitation & Snow Cover	2
Average Temperature & Departure	3
Weather Data for Selected Cities	4
Mean Annual Snowfall	7
Heating Degree Days Maps	8
Heating Degree Days Table	9
December Weather & Crop Summary	10
December Precipitation & Percent of Normal	11
December Temperature & Departure	12
December Weather Data for Selected Cities	13
December Heating Degree Days Table	14
National Agricultural Summary	15
State Summaries of Weather & Agriculture	16
Approximate Cultivated Land Area of the World	20
International Weather & Crop Summary	21
Subscription & Mailing Permit Information	24

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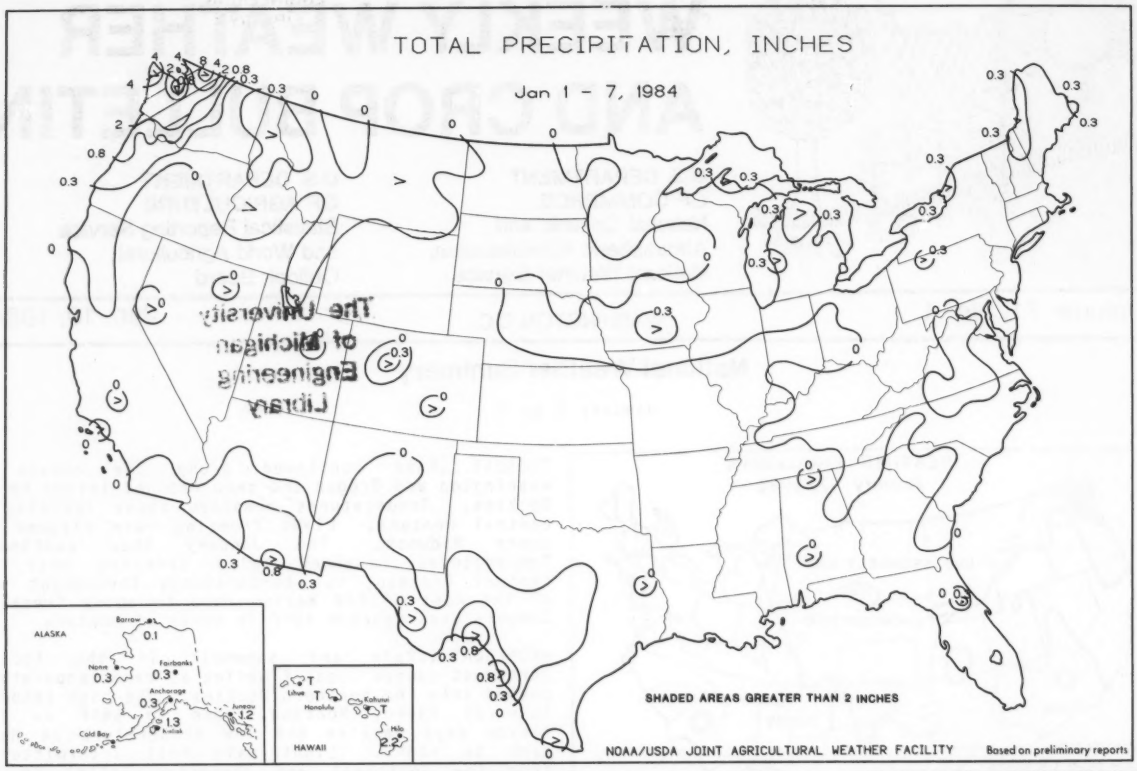

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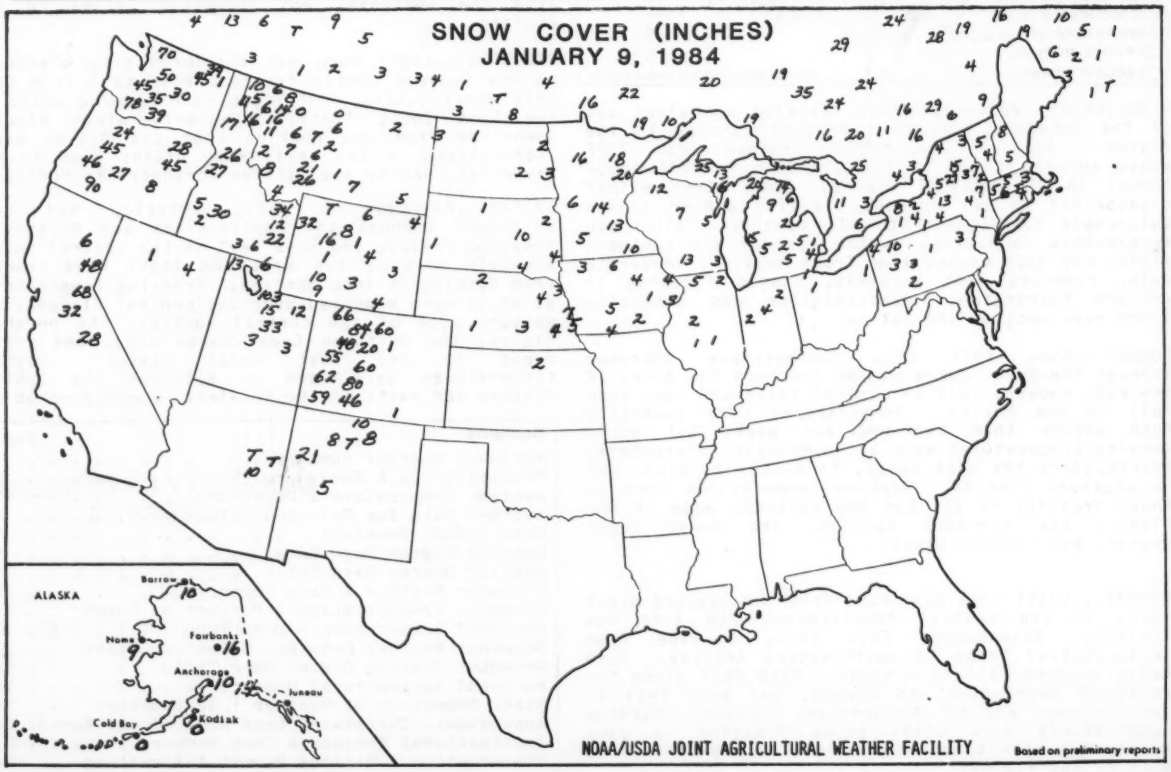

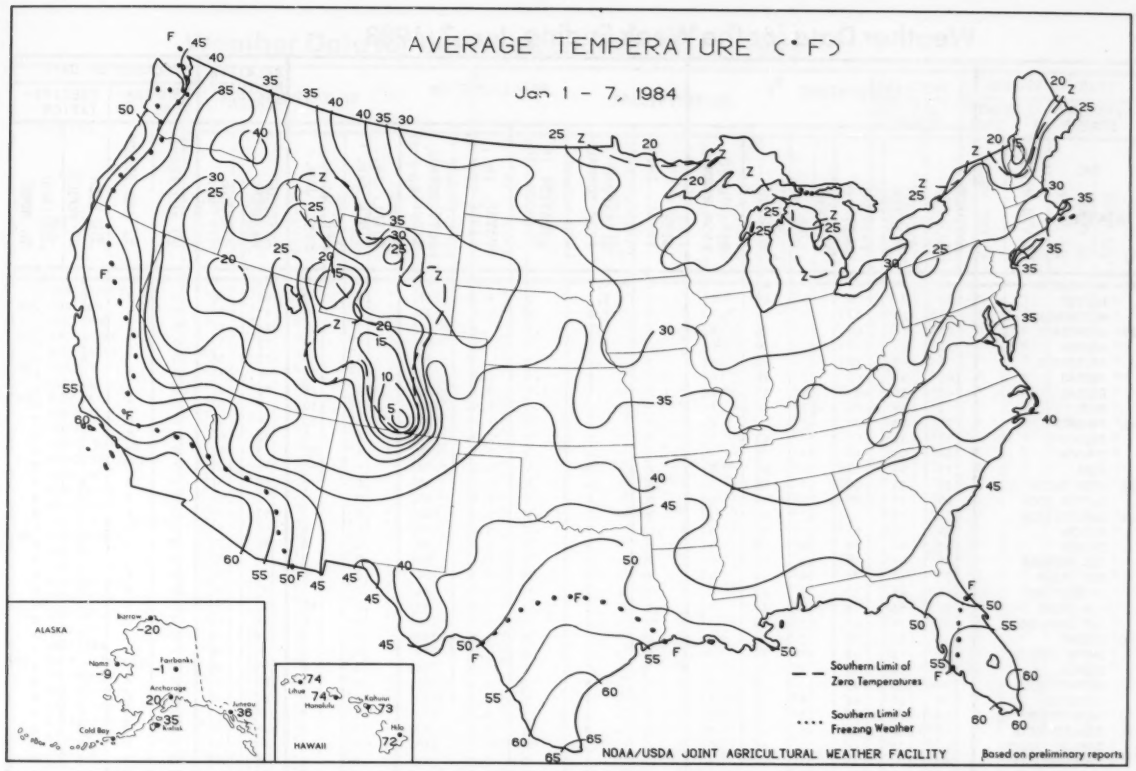

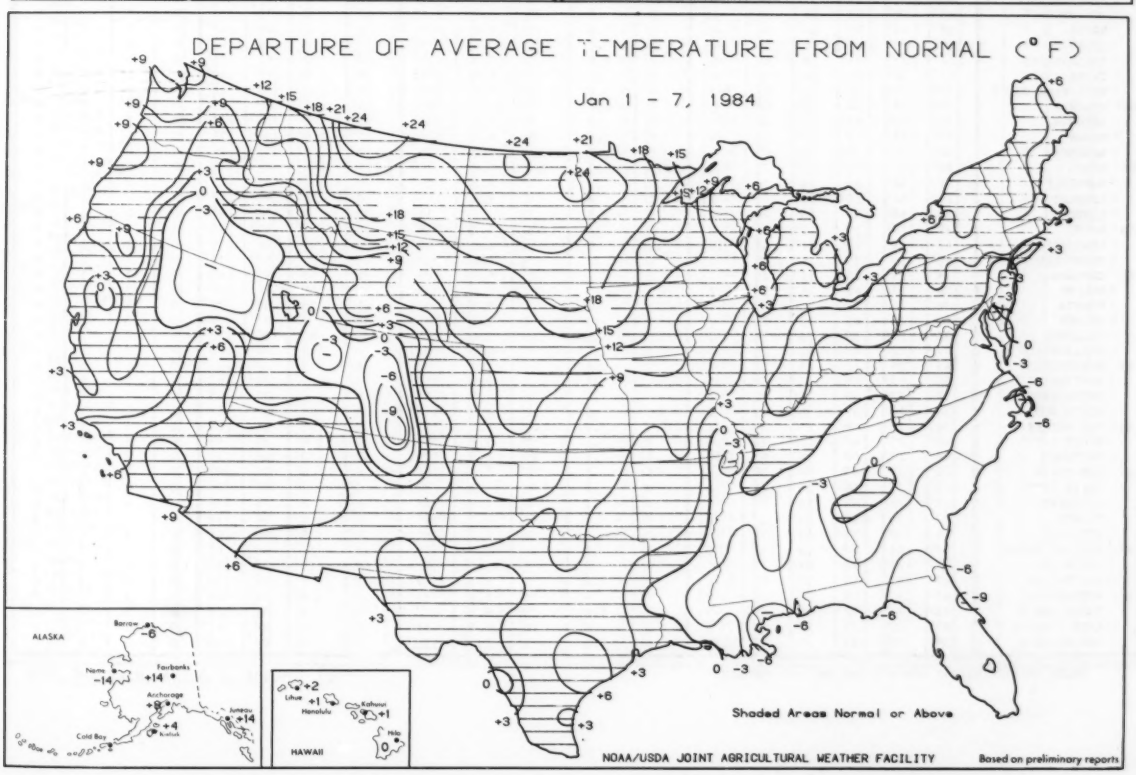

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Weather Data for the Week Ending Jan. 7, 1983

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
																TEMPERATURE °F		PRECIPITATION	
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE NOV 27	PCT. NORMAL SINCE NOV 27	TOTAL, IN., SINCE JAN. 1	PCT. NORMAL SINCE JAN. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	54	27	65	19	40	-3	0	- 1.2	0	16.4	241	0	0	87	30	0	5	0	0
MOBILE	61	33	70	22	47	-4	0	- 1.1	0	9.3	127	0	0	82	30	0	2	0	0
MONTGOMERY	60	28	67	19	44	-3	T	- 1.0	T	8.5	135	0	0	91	30	0	5	0	0
AK ANCHORAGE	28	13	42	-5	20	8	.3	.1	.2	.8	53	.3	150	86	66	0	7	3	0
BARROW	-15	-25	-7	-33	-20	-6	.1	.1	.1	.2	67	.1	+100	73	57	0	7	2	0
FAIRBANKS	6	-7	10	-22	-1	14	.3	.1	.1	.9	90	.3	150	73	58	0	7	4	0
JUNEAU	41	31	44	23	36	14	1.2	.3	.6	1.8	29	1.2	133	99	73	0	3	5	1
KODIAK	40	30	45	19	35	4	1.3	.4	1.1	8.7	100	1.3	76	83	62	0	4	4	1
NOME	1	-19	24	-27	-9	-14	.3	.1	.2	1.9	190	.3	150	74	54	0	7	2	0
AZ PHOENIX	71	49	76	47	60	8	.3	.1	.3	1.4	127	.3	150	84	35	0	0	1	0
PRESCOTT	56	31	62	27	43	7	T	.4	T	1.3	57	0	0	92	46	0	6	1	0
TUCSON	64	46	70	39	55	4	.6	.4	.5	1.1	100	.6	300	73	42	0	0	3	0
YUMA	73	54	76	52	64	8	.1	0	.1	1.0	200	.1	100	58	25	0	0	1	0
AR FORT SMITH	52	26	64	23	39	1	0	.4	0	2.4	65	0	0	88	51	0	7	0	0
LITTLE ROCK	56	35	66	23	45	6	0	.8	0	8.6	165	0	0	74	52	0	2	0	0
CA BAKERSFIELD	53	44	57	42	48	1	T	.2	T	1.3	144	0	0	95	79	0	0	1	0
EUREKA	59	45	64	42	52	5	.1	1.5	.1	14.4	166	.1	6	98	81	0	0	2	0
FRESNO	53	43	59	39	48	4	T	.4	T	1.8	78	0	0	94	77	0	0	0	0
LOS ANGELES	71	49	79	45	60	4	0	.6	0	2.0	87	0	0	77	33	0	0	0	0
RED BLUFF	58	40	70	36	49	4	T	1.0	T	10.2	204	0	0	97	69	0	0	1	0
SACRAMENTO	51	43	57	39	47	3	0	.9	0	4.0	95	0	0	97	84	0	0	0	0
SAN DIEGO	71	56	78	49	64	7	.2	.3	.2	1.7	85	.2	40	77	39	0	0	1	0
SAN FRANCISCO	57	46	62	42	51	3	T	1.0	T	6.3	129	0	0	89	64	0	0	0	0
CO DENVER	50	23	58	12	36	7	0	.1	0	1.4	200	0	0	76	36	0	7	0	0
GRAND JUNCTION	36	13	42	8	25	0	0	.1	0	1.7	283	0	0	79	54	0	7	0	0
PUEBLO	48	20	57	7	34	5	T	.1	T	1.0	200	0	0	93	49	0	7	1	0
CT BRIDGEPORT	38	28	41	15	33	3	T	.8	T	5.3	106	0	0	86	66	0	5	1	0
HARTFORD	36	24	41	9	30	4	T	.8	T	6.9	123	0	0	88	60	0	6	2	0
DC WASHINGTON	45	28	50	19	37	1	T	.6	T	6.3	150	0	0	75	43	0	5	0	0
FL APALACHICOLA	61	34	66	26	47	-6	0	.8	0	6.9	147	0	0	85	36	0	3	0	0
DAYTONA BEACH	61	37	66	33	49	-9	0	.5	0	12.5	417	0	0	88	47	0	0	0	0
JACKSONVILLE	62	31	69	25	47	-6	0	.6	0	6.4	188	0	0	89	29	0	3	0	0
KEY WEST	68	58	76	54	63	-6	0	.4	0	5.2	208	0	0	82	57	0	0	0	0
MIAMI	70	49	76	44	60	-8	T	.4	T	4.4	176	0	0	86	43	0	0	0	0
ORLANDO	66	39	69	34	53	-8	0	.4	0	5.4	225	0	0	94	42	0	0	0	0
TALLAHASSEE	64	27	71	19	45	-6	T	1.0	T	7.5	121	0	0	92	26	0	5	0	0
TAMPA	66	38	68	26	52	-8	0	.4	0	4.9	175	0	0	97	40	0	1	0	0
WEST PALM BEACH	70	47	73	42	59	-7	0	.6	0	7.3	228	0	0	94	48	0	0	0	0
GA ATLANTA	54	30	64	21	42	0	.0	1.1	0	10.6	180	0	0	80	33	0	4	0	0
AUGUSTA	59	24	69	17	42	-3	0	.8	0	5.6	133	0	0	80	27	0	7	0	0
MACON	60	28	69	17	44	-3	T	1.0	T	6.8	124	0	0	86	31	0	4	0	0
SAVANNAH	60	31	70	20	45	-4	T	.7	T	4.9	129	0	0	73	26	0	4	1	0
HI HILO	80	64	83	62	72	0	2.2	.2	1.5	5.5	32	2.2	110	86	59	0	0	3	2
HONOLULU	81	66	84	61	74	1	T	.8	T	1.3	27	0	0	91	57	0	0	1	0
KAHULUI	83	64	85	58	73	1	T	.8	T	5.7	143	0	0	87	62	0	0	1	0
LIHUE	80	68	84	63	74	2	T	1.4	T	.8	11	0	0	86	62	0	0	1	0
ID BOISE	32	26	35	20	29	0	T	.3	T	4.3	239	0	0	92	75	0	7	1	0
LEWISTON	47	36	51	27	42	10	.1	.2	.1	1.2	67	.1	33	84	59	0	2	1	0
POCATELLO	31	19	36	6	25	1	T	.2	T	3.8	317	0	0	92	74	0	7	1	0
IL CHICAGO	33	17	38	12	25	3	.2	.2	.2	5.9	203	.2	50	90	65	0	7	1	0
MOLINE	36	17	42	6	27	7	.2	.2	.2	4.2	168	.2	50	91	69	0	7	1	0
PEORIA	36	21	42	13	28	6	.1	.3	.1	4.5	167	.1	25	95	71	0	7	1	0
QUINCY	38	24	45	13	31	7	T	.3	T	4.1	195	0	0	93	72	0	7	0	0
ROCKFORD	33	19	39	10	26	7	.2	.1	.2	3.6	144	.2	67	96	77	0	7	1	0
SPRINGFIELD	37	22	40	12	29	4	0	.4	0	5.0	192	0	0	94	70	0	7	0	0
IN EVANSVILLE	43	26	47	15	34	3	T	.7	T	5.2	113	0	0	88	61	0	6	0	0
FORT WAYNE	36	23	41	7	30	5	T	.5	T	6.0	182	0	0	84	63	0	7	1	0
INDIANAPOLIS	37	23	40	18	30	3	0	.6	0	4.4	113	0	0	85	55	0	7	0	0
SOUTH BEND	34	17	39	6	25	1	.1	.5	.1	4.5	115	.1	17	89	67	0	7	1	0
IA DES MOINES	38	23	46	13	30	11	.5	.3	.5	3.2	213	.5	250	91	64	0	7	1	0
SIOUX CITY	40	25	47	15	32	16	T	.1	T	1.8	225	0	0	85	66	0	6	1	0
WATERLOO	34	16	42	6	25	10	.1	.1	.1	2.0	125	.1	50	96	79	0	7	1	0
KS CONCORDIA	41	32	45	22	36	11	T	.1	T	1.8	164	0	0	78	62	0	3	0	0
DODGE CITY	53	31	64	24	42	12	0	.1	0	.8	100	0	0	82	50	0	3	0	0
GOODLAND	47	27	53	18	37	10	0	.1	0	1.3	260	0	0	89	59	0	4	0	0
TOPEKA	43	23	50	10	33	6	0	.2	0	2.2	129	0	0	84	57	0	7	0	0
WICHITA	49	22	59	15	35	8	0	.2	0	1.2	92	0	0	90	51	0	7	0	0
KY BOWLING GREEN	43	27	47	18	35		.1	.9	.1	8.5	135	.1	10	98	68	0	7	1	0
LEXINGTON	40	28	42	23	34		.1	.8	T	5.5	104	.1	11	92	59	0	5	2	0
LOUISVILLE	43	29	45	21	36		T	.8	T	5.5	112	0	0	81	55	0	5	1	0
LA ALEXANDRIA	61	36	73	25	48	3	T	1.0	T	5.8	89	0	0	75	40	0	2	0	0
BATON ROUGE	63	34	72	19	49	-3	0	1.0	0	8.9	137	0	0	91	37	0	3	0	0
LAKE CHARLES	65	40	73	29	53	1	0	1.0	0	4.0	61	0	0	90	41	0	1	0	0
NEW ORLEANS	59	34	69	21	47	-6	0	1.1	0	8.7	123	0	0	85	38	0	3	0	

BASED ON PRELIMINARY REPORTS AND 1951-80 NORMALS

+100 = NORMAL & ACTUAL NEAR THE SAME

Weather Data for the Week Ending Jan. 7, 1983

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
																TEMPERATURE °F		PRECIPITATION	
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE NOV 27	PCT. NORMAL SINCE NOV 27	TOTAL, IN., SINCE JAN. 1	PCT. NORMAL SINCE JAN. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
SHREVEPORT	61	32	70	25	47	0	T	- .9	T	7.7	148	0	0	86	39	0	3	0	0
ME CARIBOU	25	11	33	-14	18	7	.1	- .5	T	5.7	136	.1	17	88	67	0	7	4	0
PORTLAND	34	22	41	10	28	6	.1	- .8	T	9.5	158	.1	11	88	60	0	6	3	0
MD BALTIMORE	41	24	47	14	33	0	T	- .7	T	7.9	180	0	0	86	49	0	6	2	0
SALISBURY	46	27	53	20	36	1	.1	- .7	.1	4.7	96	.1	13	88	49	0	7	1	0
MA BOSTON	38	27	44	22	32	2	.1	- .8	.1	6.0	98	.1	11	78	53	0	6	2	0
CHATHAM	40	31	38	24	35	3	.3	- .7	0	5.4	82	.3	30	--	--	0	2	1	0
MI ALPENA	30	18	37	0	24	5	.4	- .1	.1	2.4	89	.4	80	94	76	0	7	4	0
DETROIT	32	22	39	8	27	3	.1	- .4	T	4.8	141	.1	20	82	54	0	7	2	0
FLINT	31	19	35	-4	25	3	.1	- .3	.1	2.4	86	.1	25	94	72	0	7	3	0
GRAND RAPIDS	32	18	36	4	25	2	.1	- .4	.1	3.8	112	.1	20	98	76	0	7	2	0
HOUGHTON LAKE	28	17	35	-4	22	4	.4	0	.1	2.7	104	.4	100	91	74	0	7	5	0
LANSING	32	19	36	-1	25	3	.1	- .4	T	2.3	77	.1	20	96	75	0	7	3	0
MARQUETTE	29	9	37	1	19	6	.3	- .2	.1	5.2	153	.3	60	94	72	0	7	5	0
MUSKEGON	34	21	37	5	27	3	.4	- .2	.3	5.6	156	.4	67	89	75	0	7	3	0
SAULT STE. MARIE	27	9	35	-11	18	4	.7	.1	.2	4.2	120	.7	117	98	73	0	7	6	0
MN ALEXANDRIA	32	16	38	2	24	18	T	- .2	T	1.5	136	0	0	97	76	0	0	1	0
DULUTH	31	15	41	9	23	16	.1	- .2	T	3.1	163	.1	33	97	78	0	7	4	0
INT'L FALLS	30	11	38	-1	21	20	.1	- .1	.1	1.1	85	.1	50	95	69	0	7	4	0
MINNEAPOLIS	34	19	43	8	26	14	T	- .2	T	2.7	225	0	0	93	65	0	7	0	0
ROCHESTER	31	19	39	9	25	13	0	- .2	0	2.1	162	0	0	93	74	0	7	0	0
MS GREENWOOD	54	28	60	21	41	-3	0	- 1.2	0	16.3	220	0	0	81	43	0	6	0	0
JACKSON	59	27	70	17	43	-3	0	- 1.2	0	7.7	107	0	0	92	34	0	6	0	0
MERIDIAN	62	27	74	18	45	-1	0	- 1.2	0	7.8	104	0	0	93	28	0	6	0	0
MO CAPE GIRARDEAU	43	24	49	17	34	--	T	- .7	T	4.5	88	0	0	100	64	0	7	0	0
COLUMBIA	43	26	52	16	35	7	T	- .4	T	3.6	133	0	0	85	56	0	6	0	0
KANSAS CITY	41	24	48	11	33	6	T	- .3	T	2.3	128	0	0	97	66	0	7	0	0
SAINT LOUIS	45	26	53	18	35	6	T	- .4	T	5.7	204	0	0	99	61	0	6	0	0
SPRINGFIELD	47	24	59	11	36	4	0	- .4	0	2.8	85	0	0	90	58	0	6	0	0
MT BILLINGS	47	33	55	27	40	19	T	- .2	T	1.0	100	0	0	80	53	0	3	1	0
GLASGOW	38	19	47	8	29	19	T	- .1	T	.5	71	0	0	88	66	0	7	1	0
GREAT FALLS	49	35	58	23	42	23	T	- .2	T	.9	75	0	0	83	59	0	3	0	0
HAVRE	43	30	54	13	37	25	T	- .1	T	.3	38	0	0	86	65	0	3	1	0
HELENA	44	28	52	12	36	18	.1	- .1	T	.9	100	.1	50	88	59	0	4	2	0
KALISPELL	39	28	47	13	33	14	.2	- .2	.2	1.8	86	.2	50	96	82	0	6	4	0
MILES CITY	42	26	49	13	34	19	T	- .1	T	.3	38	0	0	94	71	0	6	1	0
MISSOULA	36	26	44	9	31	10	.5	- .1	.2	2.3	144	.5	125	99	88	0	6	4	0
NE GRAND ISLAND	41	28	45	19	35	14	T	- .1	T	2.3	209	0	0	85	66	0	5	1	0
LINCOLN	39	22	45	9	30	10	.2	.1	.2	2.2	244	.2	200	94	72	0	7	1	0
NORFOLK	43	27	48	19	35	17	T	- .1	T	2.2	275	0	0	85	61	0	6	0	0
NORTH PLATTE	40	18	46	8	29	8	T	- .1	T	1.3	260	0	0	81	56	0	7	1	0
OMAHA	39	27	47	18	33	13	.3	.1	.3	3.4	283	.3	150	92	79	0	5	1	0
SCOTTSBLUFF	48	26	58	10	37	13	0	- .1	0	1.3	186	0	0	80	49	0	5	0	0
VALENTINE	41	23	47	13	32	13	T	0	T	1.1	220	T	+100	77	60	0	6	1	0
NV ELY	45	16	52	6	31	7	0	- .2	0	1.4	140	0	0	92	58	0	7	0	0
LAS VEGAS	63	39	66	32	51	7	0	- .1	0	.4	80	0	0	63	28	0	1	0	0
RENO	35	29	40	27	32	1	T	- .3	T	1.4	88	0	0	85	72	0	7	1	0
WINNEMUCCA	29	20	32	12	25	-4	T	- .2	T	3.7	308	0	0	89	75	0	7	0	0
NH CONCORD	33	18	38	2	26	5	.1	- .6	.1	6.2	135	.1	14	93	66	0	6	2	0
NJ ATLANTIC CITY	42	22	46	13	32	-1	.1	- .7	T	5.7	114	.1	13	92	54	0	7	3	0
NM ALBUQUERQUE	52	26	60	20	39	5	T	- .1	T	.4	67	0	0	87	34	0	7	1	0
CLOVIS	55	33	63	26	44	7	0	- .1	0	.3	50	0	0	70	36	0	4	0	0
ROSWELL	56	33	62	26	44	3	0	- .1	0	.3	150	0	0	88	47	0	3	0	0
NY ALBANY	34	20	37	8	27	5	.1	- .5	T	6.0	150	.1	17	89	67	0	7	2	0
BINGHAMTON	32	23	36	8	27	6	.2	- .5	.1	6.9	168	.2	29	87	68	0	7	3	0
BUFFALO	33	25	38	8	29	5	.1	- .6	T	9.2	200	.1	14	92	67	0	5	3	0
NEW YORK	39	31	44	23	35	2	T	- .7	T	7.1	145	0	0	81	58	0	4	2	0
ROCHESTER	34	25	38	9	29	5	.1	- .4	.1	5.6	156	.1	20	88	68	0	6	2	0
SYRACUSE	34	24	37	2	29	5	.2	- .4	.2	6.1	145	.2	33	91	69	0	6	4	0
NC ASHEVILLE	50	21	55	12	35	-2	T	- .8	T	9.8	209	0	0	92	33	0	7	0	0
CHARLOTTE	52	27	61	18	40	-1	T	- .8	T	7.7	171	0	0	78	32	0	5	1	0
GREENSBORO	49	25	56	14	37	-1	T	- .8	T	4.5	100	0	0	76	31	0	5	0	0
HATTERAS	47	30	60	26	38	-8	T	- 1.0	T	7.1	116	0	0	86	57	0	5	1	0
NEW BERN	52	26	62	23	39	-5	.1	- .7	.1	4.9	102	.1	13	89	39	0	7	2	0
RALEIGH	50	25	56	16	38	-2	T	- .8	T	6.8	158	0	0	80	34	0	5	0	0
WILMINGTON	54	28	63	24	41	-5	.1	- .7	.1	5.3	113	.1	13	78	35	0	7	1	0
ND BISMARCK	39	20	44	2	30	22	T	- .1	T	.6	100	0	0	91	65	0	6	0	0
FARGO	33	18	40	3	26	20	T	- .1	T	1.3	163	0	0	84	63	0	7	0	0
GRAND FORKS	34	20	42	7	27	24	T	- .1	T	.8	114	0	0	85	68	0	7	1	0
WILLISTON	39	21	46	6	30	23	T	- .1	T	.7	100	0	0	88	67	0	6	1	0
OH AKRON-CANTON	35	28	39	19	31	5	.1	- .5	.1	4.3	119	.1	17	80	62	0	6	2	0
CINCINNATI	36	26	39	19	31	1	T	- .7	T	3.8	93	0	0	88	65	0	7	0	0
CLEVELAND	33	25	38	19	29	3	.1	- .5	.1	3.8	100	.1	17	88	63	0	7	1	0
COLUMBUS	35	28	38	19	32	4	T	- .6	T	4.4	122	0	0	75	54	0	5	1	0

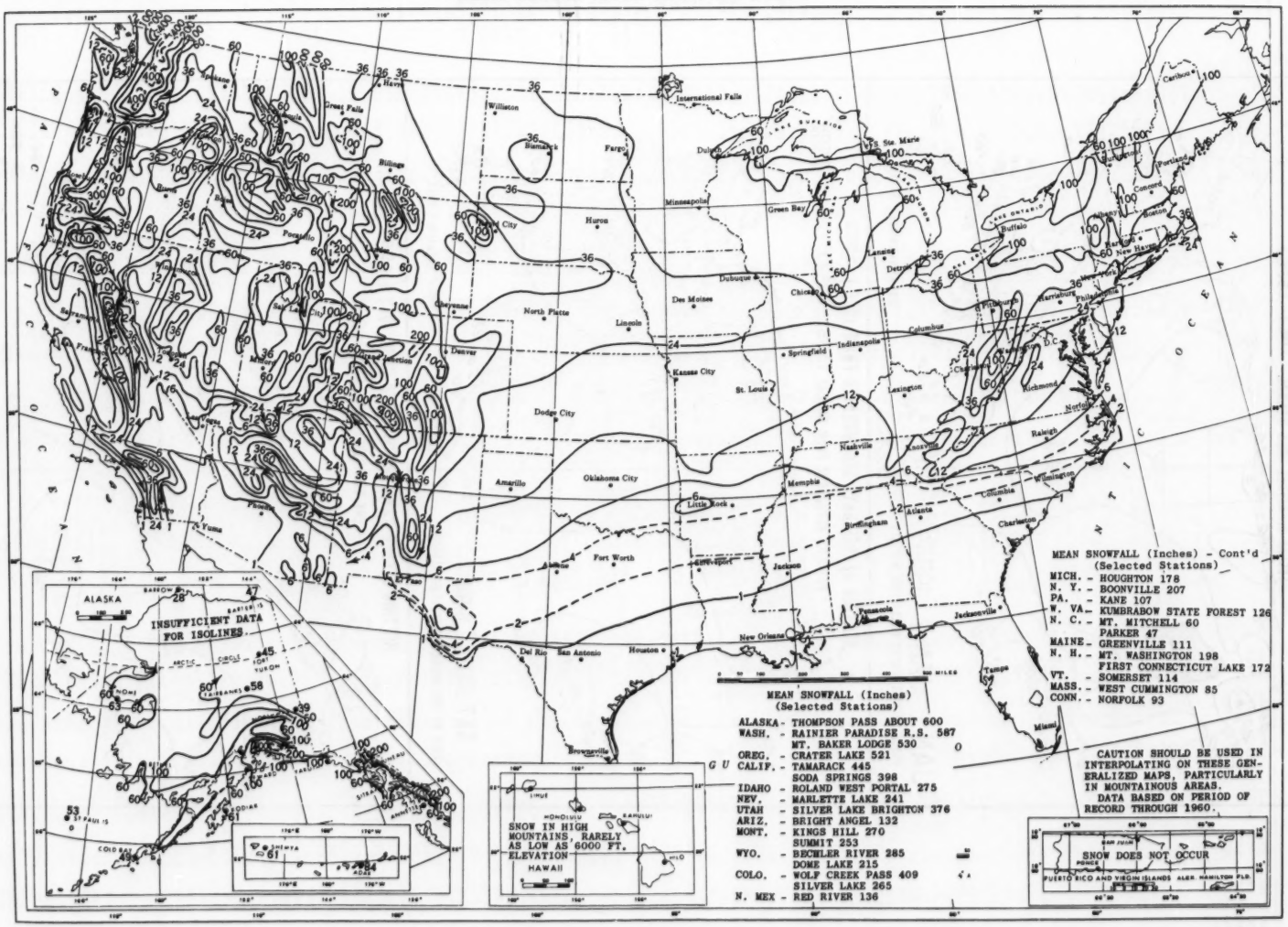
BASED ON PRELIMINARY REPORTS AND 1951-80 NORMALS

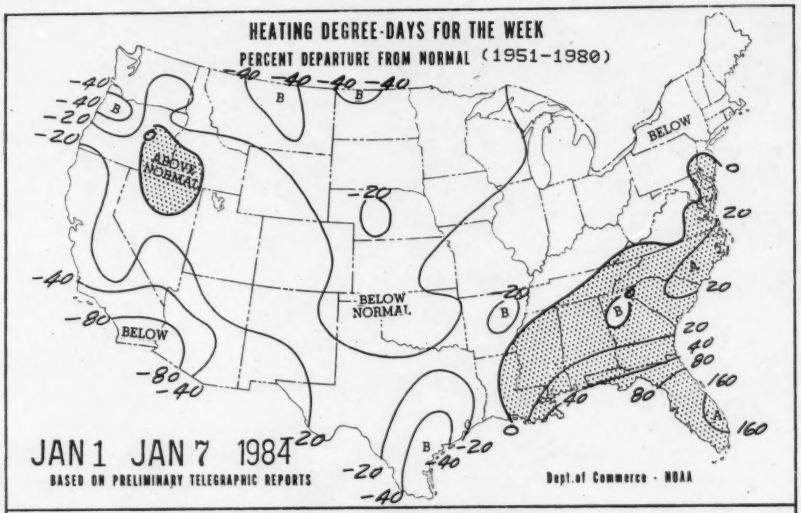
Weather Data for the Week Ending Jan. 7, 1983

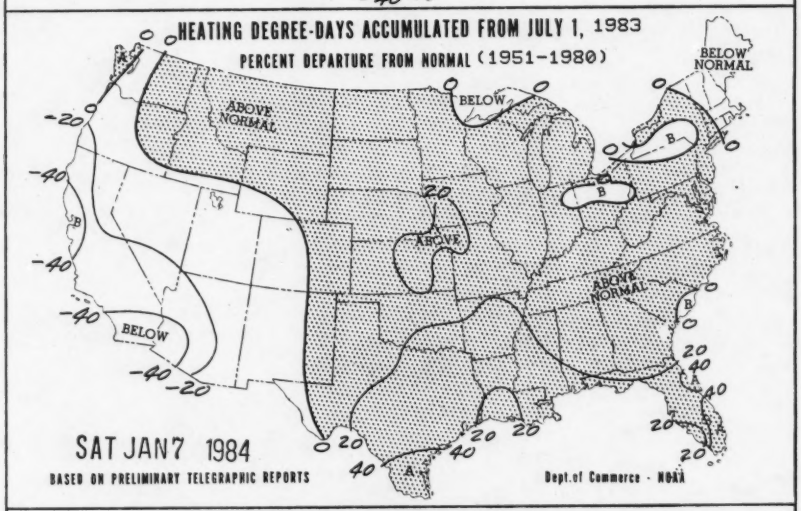
STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
																TEMPERATURE °F		PRECIPITATION	
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE NOV 27	PCT. NORMAL SINCE NOV 27	TOTAL, IN., SINCE JAN. 1	PCT. NORMAL SINCE JAN. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	35	25	38	16	30	3	T	- .6	T	3.6	103	0	0	78	57	0	7	0	0
TOLEDO	31	20	37	8	26	2	T	- .5	T	5.0	147	0	0	92	67	0	7	1	0
YOUNGSTOWN	31	24	36	10	28	3	.1	- .6	.1	4.9	126	.1	14	92	74	0	7	3	0
OK OKLAHOMA CITY	56	31	70	25	43	7	0	- .2	0	.7	41	0	0	85	40	0	3	0	0
TULSA	56	31	73	25	44	8	0	- .3	0	1.0	40	0	0	87	44	0	4	0	0
OR ASTORIA	54	42	59	35	48	7	2.1	- .6	.9	11.6	74	2.1	78	100	85	0	0	4	2
BURNS	27	16	33	3	21	-5	T	- .1	T	3.7	336	0	0	88	85	0	7	0	0
MEDFORD	44	35	51	31	39	3	T	- .8	T	7.0	149	0	0	100	89	0	2	2	0
PENDLETON	48	30	61	16	39	6	.1	- .3	.1	3.7	154	.1	25	96	72	0	5	2	0
PORTLAND	49	39	60	32	44	5	.5	- 1.0	.3	5.8	67	.5	33	99	80	0	1	2	0
SALEM	56	43	65	35	50	11	.4	- 1.3	.2	7.5	77	.4	24	90	76	0	0	2	0
PA ALLENTOWN	35	24	43	15	30	2	.1	- .7	.1	8.6	176	.1	13	81	59	0	6	1	0
ERIE	35	27	39	15	31	5	.2	- .5	.1	5.2	121	.2	29	82	58	0	6	3	0
HARRISBURG	36	25	38	13	31	0	T	- .7	T	7.5	93	0	0	85	53	0	6	0	0
PHILADELPHIA	38	24	42	15	31	-1	.1	- .7	.1	7.7	164	.1	13	86	58	0	7	1	0
PITTSBURGH	35	26	40	15	31	3	T	- .6	T	5.3	156	0	0	79	54	0	7	2	0
SCRANTON	36	26	42	12	31	5	.1	- .5	T	6.8	189	.1	17	87	74	0	4	2	0
RI PROVIDENCE	40	26	46	20	33	4	.1	- .9	.1	8.6	141	.1	10	76	52	0	7	1	0
SC CHARLESTON	58	31	69	27	45	-3	T	- .7	T	4.4	107	0	0	84	30	0	4	1	0
COLUMBIA	57	25	66	14	41	-4	T	- 1.0	T	6.9	141	0	0	88	26	0	5	0	0
FLORENCE	56	29	67	22	42	-3	T	- .8	T	6.4	149	0	0	89	38	0	5	1	0
GREENVILLE	53	27	61	18	40	-1	T	- .9	T	9.1	175	0	0	68	28	0	5	0	0
SD ABERDEEN	38	23	44	0	30	21	0	- .1	0	.7	117	0	0	91	74	0	5	0	0
HURON	38	24	43	10	31	19	T	- .1	T	1.0	167	0	0	92	77	0	5	0	0
RAPID CITY	46	27	59	14	37	15	T	- .1	T	.5	71	0	0	77	51	0	5	0	0
SIOUX FALLS	37	24	43	13	31	18	T	- .1	T	1.1	122	0	0	92	73	0	6	0	0
TN CHATTANOOGA	50	23	61	13	36	-3	T	- 1.2	T	11.6	166	0	0	92	39	0	7	0	0
KNOXVILLE	48	25	56	16	37	-2	.1	- 1.0	.1	6.9	108	.1	9	91	47	0	5	1	0
MEMPHIS	52	29	59	22	41	1	0	- 1.1	0	9.3	143	0	0	90	48	0	5	0	0
NASHVILLE	51	26	54	19	38	1	T	- 1.0	T	9.6	157	0	0	94	51	0	6	0	0
TX ABILENE	57	34	68	27	46	2	T	- .2	T	.7	64	0	0	82	44	0	3	0	0
AMARILLO	57	29	71	25	43	8	0	- .1	0	.7	88	0	0	81	37	0	6	0	0
AUSTIN	65	44	75	40	55	6	.1	- .3	T	1.0	36	.1	25	78	43	0	0	2	0
BEAUMONT	65	42	73	37	54	2	0	- 1.0	0	7.9	130	0	0	94	48	0	0	0	0
BROWNSVILLE	73	57	81	54	65	5	T	- .2	T	.5	31	0	0	93	58	0	0	0	0
CORPUS CHRISTI	70	50	78	45	60	4	0	- .4	0	.6	30	0	0	87	51	0	0	0	0
DEL RIO	58	43	69	35	51	0	.7	.6	.4	.7	117	.7	700	91	61	0	0	2	0
EL PASO	60	36	70	31	48	5	.2	.1	.2	.3	60	.2	200	85	40	0	1	3	0
FORT WORTH	61	34	72	26	47	3	T	- .3	T	1.1	52	0	0	86	42	0	2	0	0
GALVESTON	62	47	72	43	55	1	0	- .7	0	3.3	67	0	0	90	64	0	0	0	0
HOUSTON	66	44	72	41	55	3	0	- .7	0	4.8	98	0	0	87	46	0	0	0	0
LUBBOCK	60	32	68	29	46	7	0	- .1	0	.3	60	0	0	89	38	0	6	0	0
MIDLAND	56	33	66	26	45	1	.1	0	.1	.2	33	.1	100	84	42	0	3	1	0
SAN ANGELO	57	35	65	30	46	1	.1	0	.1	.2	25	.1	100	92	50	0	1	2	0
SAN ANTONIO	65	44	78	40	55	4	.2	- .1	.2	.8	40	.2	67	79	48	0	0	1	0
VICTORIA	71	49	78	44	60	7	0	- .4	0	.9	32	0	0	90	46	0	0	0	0
WACO	62	38	75	32	50	4	T	- .3	T	.9	35	0	0	90	46	0	1	1	0
WICHITA FALLS	58	32	71	25	45	5	0	- .2	0	.9	53	0	0	90	43	0	4	0	0
UT BLANDING	47	24	52	21	35	9	0	- .4	0	1.1	61	0	0	92	55	0	5	0	0
CEDAR CITY	37	24	46	17	31	2	T	- .1	T	.8	114	0	0	87	64	0	7	0	0
SALT LAKE CITY	32	27	33	22	30	1	T	- .3	T	4.3	226	0	0	86	75	0	7	0	0
VT BURLINGTON	32	17	40	4	25	7	.1	- .4	T	6.0	176	.1	20	85	58	0	5	3	0
VA NORFOLK	45	28	55	25	36	-4	T	- .8	T	6.1	139	0	0	86	47	0	7	1	0
RICHMOND	46	26	56	17	36	-1	T	- .8	T	4.6	98	0	0	83	44	0	5	1	0
ROANOKE	48	28	54	14	38	2	T	- .6	T	6.1	156	0	0	79	38	0	5	0	0
WA COLVILLE	38	33	45	24	35	11	.6	.1	.5	3.0	91	.6	120	98	94	0	2	6	1
QUILLAYUTE	52	44	56	35	48	9	6.3	2.7	1.7	15.2	70	6.3	175	100	91	0	0	7	4
SEATTLE-TACOMA	52	45	61	35	49	9	1.5	.1	.6	6.6	78	1.5	107	94	80	0	0	6	2
SPOKANE	42	34	49	30	38	13	.6	0	.5	3.1	91	.6	100	94	78	0	3	2	0
YAKIMA	38	29	44	22	33	6	.1	- .3	.1	2.2	116	.1	25	94	82	0	5	2	0
WV BECKLEY	38	27	45	15	33	2	.1	- .7	.1	2.5	56	.1	13	94	57	0	6	1	0
CHARLESTON	42	27	46	13	35	1	.3	- .5	.1	3.8	86	.3	38	85	49	0	5	3	0
HUNTINGTON	39	30	42	14	34	1	.1	- .6	.1	3.7	88	.1	14	79	50	0	3	2	0
PARKERSBURG	39	29	44	20	34	3	.1	- .8	T	4.4	107	.1	11	95	64	0	5	2	0
WI GREEN BAY	33	17	37	5	25	10	T	- .3	T	2.1	105	0	0	93	70	0	7	2	0
LA CROSSE	34	18	42	7	26	11	0	- .2	0	1.2	86	0	0	98	76	0	7	0	0
MADISON	33	20	41	5	26	10	.1	- .2	.1	3.3	150	.1	33	95	75	0	7	2	0
MILWAUKEE	35	20	40	14	28	8	.2	- .2	.2	4.3	159	.2	50	79	61	0	7	1	0
WAUSAU	32	17	37	4	24	12	T	- .2	T	1.6	94	0	0	90	63	0	7	0	0
WY CASPER	38	27	44	16	33	10	0	- .1	0	.7	117	0	0	77	61	0	4	0	0
CHEYENNE	46	25	55	6	35	9	0	- .1	0	1.4	200	0	0	78	45	0	6	0	0
LANDER	36	13	47	-5	25	5	0	- .1	0	.7	88	0	0	85	59	0	7	0	0
SHERIDAN	45	25	51	10	35	16	T	- .1	T	.5	56	0	0	77	47	0	6	0	0
PR SAN JUAN	86	69	90	64	77	0	T	- .8	T	3.6	61	0	0	87	53	1	0	1	0

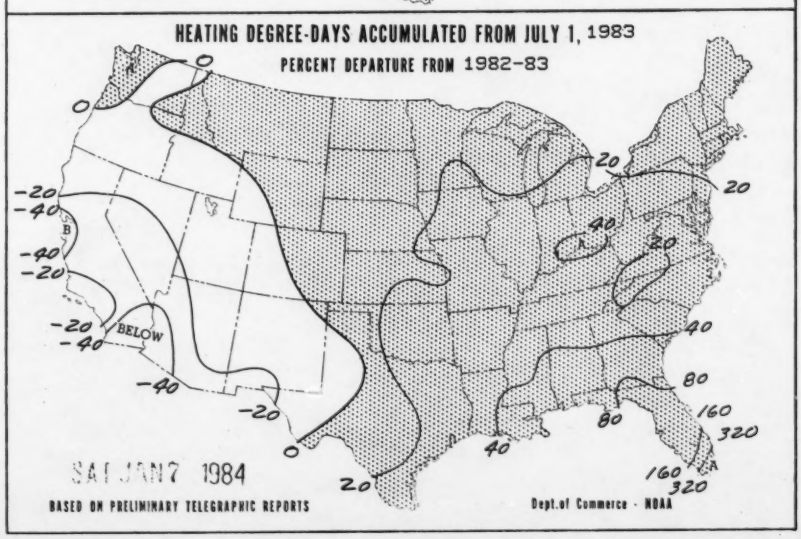
BASED ON PRELIMINARY REPORTS AND 1951-80 NORMALS

MEAN ANNUAL TOTAL SNOWFALL (Inches)


ALASKA
INSUFFICIENT DATA FOR ISOLINES.
SNOW IN HIGH MOUNTAINS, RARELY AS LOW AS 6000 FT. ELEVATION
HAWAII
SNOW DOES NOT OCCUR
PUERTO RICO AND VIRGIN ISLANDS
MEAN SNOWFALL (Inches)
(Selected Stations)
ALASKA - THOMPSON PASS ABOUT 600
WASH. - RAINIER PARADISE R.S. 587
MT. BAKER LODGE 530
OREG. - CRATER LAKE 521
CALIF. - TAMARACK 445
SODA SPRINGS 398
IDAHO - ROLAND WEST PORTAL 275
NEV. - MARLETTE LAKE 241
UTAH - SILVER LAKE BRIGHTON 376
ARIZ. - BRIGHT ANGEL 132
MONT. - KINGS HILL 270
SUMMIT 253
WYO. - BECHLER RIVER 285
DOME LAKE 215
COLO. - WOLF CREEK PASS 409
SILVER LAKE 265
N. MEX - RED RIVER 136
MEAN SNOWFALL (Inches) - Cont'd
(Selected Stations)
MICH. - HOUGHTON 178
N. Y. - BOONVILLE 207
PA. - KANE 107
W. VA - KUMBRABOW STATE FOREST 126
N. C. - MT. MITCHELL 60
PARKER 47
MAINE - GREENVILLE 111
N. H. - MT. WASHINGTON 198
FIRST CONNECTICUT LAKE 172
VT. - SOMERSET 114
MASS. - WEST CUMMINGTON 85
CONN. - NORFOLK 93
CAUTION SHOULD BE USED IN INTERPOLATING ON THESE GENERALIZED MAPS, PARTICULARLY IN MOUNTAINOUS AREAS.
DATA BASED ON PERIOD OF RECORD THROUGH 1960.


HEATING DEGREE-DAYS FOR THE WEEK
PERCENT DEPARTURE FROM NORMAL (1951-1980)
ABOVE NORMAL
BELOW NORMAL
BELOW
JAN 1 JAN 7 1984
BASED ON PRELIMINARY TELEGRAPHIC REPORTS
Dept.of Commerce - NOAA


HEATING DEGREE-DAYS ACCUMULATED FROM JULY 1, 1983
PERCENT DEPARTURE FROM NORMAL (1951-1980)
ABOVE NORMAL
BELOW NORMAL
BELOW
SAT JAN 7 1984
BASED ON PRELIMINARY TELEGRAPHIC REPORTS
Dept.of Commerce - NOAA


HEATING DEGREE-DAYS ACCUMULATED FROM JULY 1, 1983
PERCENT DEPARTURE FROM 1982-83
BELOW
SAT JAN 7 1984
BASED ON PRELIMINARY TELEGRAPHIC REPORTS
Dept.of Commerce - NOAA

COMPUTER PRINT-OUT ON PAGE 9. THIS REPORT DOES NOT PHOTOGRAPH WELL.

HEATING DEGREE DAY DATA SERVICE BULLETIN
CLIMATE ANALYSIS CENTER-NMC-NOAA
ASSESSMENT AND INFORMATION SERVICES CENTER-NESDIS-NOAA

LAST DATE OF DATA COLLECTION PERIOD IS 1- 7-1984
ACCUMULATIONS ARE FROM JULY 1
** = NORMAL LESS THAN 100 OR RATIO INCALCULABLE

STATE CITY	CALL	WEEK TOTAL	WEEK DEV FROM NORM	WEEK DEV FROM L YR	CUM TOTAL	CUM DEV FROM NORM	CUM DEV FROM L YR	CUM DEV FROM NORM PRCT	CUM DEV FROM L YR PRCT
AL BIRMINGHAM	BHM	170	16	24	1450	164	364	13	36
AL MOBILE	MOB	127	24	6	966	219	296	29	44
AL MONTGOMERY	MGM	148	22	28	1077	59	397	6	58
AK ANCHORAGE	ANC	311	+30	+30	4944	-246	-298	-5	-6
AK BARROW	BRW	521	39	+11	9210	10	+431	0	+4
AK FAIRBANKS	FAI	456	+27	+73	6565	-403	132	-6	2
AK JUNEAU	JNU	202	+58	**	4259	102	446	2	11
AK KODIAK	ADQ	209	+26	+29	3247	+760	+413	+19	+11
AK NOME	OME	511	22	37	9311	+27	+15	+1	0
AZ FLAGSTAFF	FLG	209	+50	+52	2816	+256	+523	+9	+19
AZ PHOENIX	PHX	34	+59	+53	421	+212	+99	+22	+19
AZ TUCSON	TUS	69	+32	+35	642	+94	+164	+13	+20
AZ WINSLOW	INW	212	+26	34	1849	+335	+59	+15	+4
AZ YUMA	YUM	9	+61	+59	235	+211	+210	+47	+47
AR FORT SMITH	FSM	182	+10	+7	1830	288	359	19	24
AR LITTLE ROCK	LRI	136	+39	+45	1738	332	413	24	31
CA BAKERSFIELD	BFL	11	+12	+80	782	+183	+330	+19	+33
CA EUREKA	EKA	92	+34	3	1422	+732	+253	+34	+15
CA FRESNO	FAT	119	+28	+62	932	+370	+417	+31	+33
CA LOS ANGELES	LAX	35	+29	+31	398	+172	+46	+30	+10
CA RED BLUFF	RBL	111	+31	+39	1089	+65	+137	+6	+11
CA SAN DIEGO	SAN	9	+54	+47	198	+263	+167	+57	+46
CA SAN FRANCISCO	SFO	93	+26	+57	810	+534	+429	+40	+40
CA STOCKTON	SCK	138	+9	+45	951	+229	+377	+19	+28
CO DENVER	DEN	198	+50	+39	2960	370	171	14	6
CO GRAND JUNCTION	GJT	281	+2	37	2238	+326	+147	+13	+6
CO PUEBLO	PUB	212	+34	+10	2632	207	145	9	6
CT BRIDGEPORT	BDR	225	+18	13	2167	50	186	2	9
CT HARTFORD	BDL	243	+32	10	2569	+22	294	+1	13
DE WILMINGTON	ILG	246	14	56	2177	130	389	6	22
DC WASHINGTON	DCA	196	+8	25	1736	23	342	1	25
FL APALACHICOLA	AQQ	121	37	33	726	144	317	25	78
FL DAYTONA BEACH	DAB	108	52	52	494	146	266	42	117
FL FORT MEYER	FMY	56	26	43	176	14	90	9	105
FL JACKSONVILLE	JAX	127	37	33	734	123	272	20	59
FL KEY WEST	EYW	14	7	14	49	19	39	**	**
FL MIAMI	MIA	33	19	33	107	47	82	**	**
FL ORLANDO	MCO	94	40	51	342	92	183	37	115
FL TALLAHASSEE	TLH	136	38	40	862	134	392	18	83
FL TAMPA	TPA	92	43	60	373	86	215	30	136
FL WEST PALM BEACH	PBI	42	27	39	141	60	89	**	**
GA ATLANTA	ATL	157	+4	4	1490	161	367	12	33
GA AUGUSTA	AGS	163	23	10	1212	66	226	6	31
GA MACON	MCN	143	17	20	1077	61	329	6	44
GA SAVANNAH	SAV	136	21	22	908	51	309	6	52
HI HILO-HAWAII	ITO	0	0	0	0	0	0	**	**
HI HONOLULU-OAHU	HNL	0	0	0	0	0	0	**	**
HI KAHULUI-MAUI	OGG	0	0	0	0	0	0	**	**
HI LIHUE-KAUAI	LIH	0	0	0	0	0	0	**	**
ID BOISE	BOI	252	1	+6	2726	129	+45	5	+2
ID LEWISTON	LWS	162	+70	+33	2552	81	100	3	4
ID POCATELLO	PIH	279	+12	17	3196	56	+131	2	+4
IL CHICAGO	ORD	278	+22	21	3075	411	587	15	24
IL MOLINE	MLI	267	+47	15	2980	240	539	9	25
IL PEORIA	PIA	256	+44	20	2790	150	578	6	26
IL ROCKFORD	RFD	272	+51	9	3205	266	599	9	23
IL SPRINGFIELD	SPI	250	+27	15	2675	293	560	12	26
IN EVANSVILLE	EVV	215	+21	12	2171	129	578	6	36
IN FORT WAYNE	FWA	247	+39	20	2600	+38	449	+1	21
IN INDIANAPOLIS	IND	244	+24	21	2572	177	520	7	25
IN SOUTH BEND	SBN	276	+11	42	2805	172	589	7	27
IA DES MOINES	DSM	242	+27	+6	3152	386	642	14	26
IA DUBUQUE	DBQ	267	+23	+9	3371	241	554	8	20
IA SIOUX CITY	SUX	226	+112	+56	3341	351	429	12	15
KS CONCORDIA	CNK	200	+27	+46	2957	561	488	23	20
KS DODGE CITY	DDC	160	+88	+73	2478	291	384	13	18
KS GOODLAND	GLD	192	+74	+61	2978	321	391	12	15
KS TOPEKA	TOP	225	+45	+9	2635	324	425	14	19
KS WICHITA	ICT	205	+40	+23	2552	479	504	23	25
KY LEXINGTON	LEX	215	+14	10	2171	117	474	6	28
KY LOUISVILLE	SDF	204	+19	+3	2109	174	466	9	28
LA BATON ROUGE	BTR	113	13	+5	961	216	307	29	47
LA LAKE CHARLES	LCH	85	+6	+34	790	99	176	14	29
LA NEW ORLEANS	MSY	127	36	21	931	187	314	29	61
LA SHREVEPORT	SHV	129	+5	+34	1364	257	311	35	30
ME CARIBOU	CAR	326	+52	+24	3892	+258	98	+6	3
ME PORTLAND	PWM	258	+43	+6	2919	+187	113	+6	4
MD BALTIMORE	BWI	223	+1	28	2076	117	334	6	19
MA BOSTON	BOS	228	+17	15	2188	+37	232	+2	12
MI ALPENA	APN	285	+39	18	3511	50	391	1	13
MI DETROIT	DTW	265	+20	34	2899	168	542	6	23
MI FLINT	FNT	280	+20	44	2957	54	544	2	23
MI GRAND RAPIDS	GRR	276	+18	38	3038	176	645	6	27
MI HOUGHTON LAKE	HTL	296	+31	34	3449	+20	421	+1	14
MI LANSING	LAN	275	+21	29	3189	297	599	10	23
MI MARQUETTE	MQT	319	+46	11	4091	38	186	1	5
MI MUSKEGON	MKG	262	+24	26	2981	166	481	6	19
MI SAULT ST MARIE	SSM	326	+27	17	3866	2	74	0	2
MN DULUTH	DLH	290	+115	+41	4159	+92	55	+2	1
MN INT'L FALLS	INL	309	+142	+23	4640	+11	372	0	9
MN MINNEAPOLIS	MSP	269	+101	+26	3757	339	623	10	20
MN ROCHESTER	RST	279	+94	+27	3904	371	750	11	24
MN SAINT CLOUD	STC	265	+134	+51	4052	185	424	5	12
MS JACKSON	JAN	153	20	+4	1287	227	289	21	29
MS MERIDIAN	MEI	141	7	23	1259	140	507	13	67
MO COLUMBIA	COU	210	+49	+3	2578	377	593	17	30
MO KANSAS CITY	MCI	224	+46	+13	2761	509	533	23	24
MO SAINT LOUIS	STL	209	+41	7	2321	206	525	10	29
MO SPRINGFIELD	SGF	203	+29	+4	2252	245	457	12	25
MT BILLINGS	BIL	174	+133	+32	3315	194	391	6	13
MT GLASGOW	GGW	252	+138	+35	4160	284	375	7	10
MT GREAT FALLS	GTF	158	+163	+53	3806	443	437	13	13
MT HAVRE	HVR	197	+176	+44	4282	463	617	12	17
MT HELENA	HLN	201	+126	+56	3930	270	298	7	8
MT KALISPELL	FCA	219	+100	+48	4149	305	230	8	6
MT MILES CITY	MLS	215	+137	+42	3819	356	305	10	10
MT MISSOULA	MSO	234	+73	+48	3961	302	327	10	9
NE GRAND ISLAND	GRI	259	+100	+55	3182	352	344	12	12
NE LINCOLN	LNK	241	+73	+28	3154	408	527	15	20
NE NORFOLK	OFK	238	+122	+61	3247	259	492	10	17
NE NORTH PLATTE	LBF	249	+56	+37	3409	389	401	12	13
NE OMAHA	OMA	224	+86	+35	3244	582	568	22	21
NE VALENTINE	VTN	208	+92	+12	3218	434	471	14	15
NV ELY	ELY	228	+48	1	3616	+245	+576	+7	+11
NV LAS VEGAS	LAS	58	+50	+45	1114	+259	+249	+19	+18
NV RENO	RNO	120	+8	13	2197	+611	+714	+19	+25
NV WINNEMUCCA	WMC	191	27	7	2717	+139	+262	+5	+10
NV ELY/YUCCA	ELY2	274	+40	+8	3372	+49	+282	+2	10
NH MT WASHINGTON	MWN	305	1	21	5242	111	111	2	2
NM ALBUQUERQUE	ABQ	179	+37	+79	1845	+127	+324	+8	+18
NM ROSWELL	ROW	142	+26	+124	1855	12	+239	1	+13
NM SILVER	SLC	269	+33	24	2958	71	286	2	10
NY BINGHAMTON	BGM	251	+41	7	2897	+142	310	+5	12
NY BUFFALO	BUF	280	+34	21	2848	108	512	4	22
NY NEW YORK	LGA	209	+20	18	1953	19	266	1	16
NY ROCHESTER	ROC	249	+20	6	2705	21	439	1	19
NY SYRACUSE	SYR	260	+28	8	2886	234	451	9	18
NC ASHEVILLE	AVL	205	8	22	1931	28	240	2	14
NC CAPE HATTERAS	HAT	185	51	72	1267	21	348	2	48
NC CHARLOTTE	CLT	174	2	15	1591	121	306	8	24
NC GREENSBORO	GSO	192	9	11	1868	180	309	11	20
NC RALEIGH DURHAM	RDU	188	13	20	1642	109	332	7	25
NC WILMINGTON	ILM	167	24	21	1107	64	192	6	21
ND BISMARCK	BIS	247	+154	+24	4224	279	429	7	11
ND FARGO	FAR	275	+143	+37	4241	325	438	8	12
ND WILLISTON	ISN	241	+162	+66	4267	214	267	5	7
OH AKRON-CANTON	CAK	252	+42	9	2543	+37	454	+1	22
OH CLEVELAND	CLE	260	+19	33	2681	164	604	7	29
OH COLUMBUS	CMH	232	+29	9	2539	134	516	6	26
OH CINCINNATI	CVG	225	+12	14	2469	237	750	11	44
OH DAYTON	DAY	242	+21	11	2687	296	597	12	29
OH TOLEDO	TOL	275	+15	38	2927	174	535	6	22
OH YOUNGSTOWN	YNG	259	+22	29	2755	38	512	1	29
OK OKLAHOMA CITY	OKC	149	+53	+54	1937	212	403	19	26
OK TULSA	TUL	145	+60	+39	1812	195	389	11	27
OR ASTORIA	AST	117	+51	+5	2290	16	271	1	13
OR BURNS	4BW	304	31	41	3543	417	+18	13	+1
OR MEDFORD	MFR	178	+21	11	1975	+154	+92	+8	+4
OR PENDLETON	PDT	190	+47	+2	2623	238	99	10	4
OR PORTLAND	PDX	145	+38	3	1938	+106	64	+5	3
OR SALEM	SLE	104	+79	+29	1996	+251	+145	+12	+7
PA ALLENTOWN	ABE	247	+13	27	2454	32	371	1	18
PA ERIE	ERI	237	+39	23	2493	+192	356	+7	17
PA HARRISBURG	CXY	240	+5	34	2470	232	585	10	31
PA PHILADELPHIA	PHL	239	7	49	2116	37	371	4	21
PA PITTSBURGH	PIT	240	+22	9	2621	109	513	4	24
PA SCRANTON	AVP	237	+37	2	2617	+40	302	+2	13
RI PROVIDENCE	PVD	225	+29	11	2195	+186	165	+9	9
SC CHARLESTON	CHS	142	23	17	907	+21	247	+2	37
SC COLUMBIA	CAE	158	28	12	1325	156	239	13	22
SC GREENVILLE	GSP	171	3	20	1684	254	439	18	35
SD ABERDEEN	ABR	240	+151	+25	3966	264	571	7	17
SD HURON	HON	236	+135	+28	3714	219	578	6	18
SD RAPID CITY	RAP	195	+110	+6	3524	391	448	12	15
SD SIOUX FALLS	FSD	238	+125	+52	3704	300	424	9	13
TN CHATTANOOGA	CHA	198	16	31	1746	151	390	9	29
TN KNOXVILLE	TYS	197	10	13	1919	190	369	12	25
TN MEMPHIS	MEM	169	+6	2	1572	163	409	12	35
TN NASHVILLE	BNA	186	+7	19	1752	109	411	7	31
TX ABILENE	ABI	132	+20	+47	1383	197	167	17	14
TX AMARILLO	AMA	151	+56	+84	2111	245	140	13	7
TX AUSTIN	AUS	70	+42	+78	957	181	122	23	15
TX BROWNSVILLE	BRO	7	+39	+57	395	144	102	57	35
TX CORPUS CHRISTI	CRP	30	+36	+62	612	199	131	48	27
TX DEL RIO	DRT	97	+5	+34	912	192	123	27	16
TX EL PASO	ELP	120	+34	+129	1081	+216	+244	+17	+20
TX FORT WORTH	DFW	120	+19	+66	1387	393	298	38	27
TX GALVESTON	GLS	72	+5	+34	631	137	157	28	33
TX HOUSTON	IAH	70	+23	+45	849	169	178	25	27
TX LUBBOCK	LBB	133	+49	+155	1655	79	+129	5	+7
TX MIDLAND ODESSA	MAF	140	+8	+78	1350	125	+34	10	+2
TX SAN ANGELO	SJT	130	+7	+31	1275	210	88	20	7
TX SAN ANTONIO	SAT	71	+32	+67	931	210	105	29	13
TX VICTORIA	VCT	32	+50	+77	726	193	171	34	31
TX WACO	ACT	103	+29	+52	1194	270	248	29	26
TX WICHITA FALLS	SPS	137	+36	+55	1610	266	299	20	23
UT SALT LAKE CITY	SLC	246	+13	8	2236	+332	+511	+13	+19
VT BURLINGTON	BTV	280	+51	2	3118	+184	448	+6	18
VA LYNCHBURG	LYH	200	+7	23	1973	108	437	6	28
VA NORFOLK	ORF	201	29	50	1451	64	273	5	23
VA RICHMOND	RIC	200	4	27	1897	195	498	11	36
VA ROANOKE	ROA	186	+17	+1	1991	112	252	6	14
WA QUILLAYUTE	UIL	116	+66	+30	2709	52	38	2	1
WA SEATTLE-TACOMA	SEA	114	+68	+32	2200	+62	42	+3	2
WA SPOKANE	GEG	189	+89	+59	3185	61	+45	2	+1
WA WALLA WALLA	ALW	187	+90	22	2406	221	204	10	9
WA YAKIMA	YKM	221	+40	+10	2854	59	+47	2	+2
WV BECKLEY	BKW	226	+16	3	2626	198	528	8	25
WV CHARLESTON	CRW	211	+11	14	2058	21	399	1	24
WV HUNTINGTON	HTS	212	+10	16	2139	109	479	5	29
WV PARKERSBURG	PKB	212	+20	12	2149	41	553	2	35
WI GREEN BAY	GRB	279	+71	+5	3538	120	356	4	11
WI LACROSSE	LSE	273	+78	+14	3584	392	566	12	19
WI MADISON	MSN	268	+72	+20	2489	236	423	7	14
WI MILWAUKEE	MKE	261	+57	2	3132	143	492	5	19
WY CASPER	CPR	226	+74	+10	3565	248	203	7	6
WY CHEYENNE	CYS	206	+65	+1	3428	304	200	10	6
WY LANDER	LND	279	+40	+16	3930	324	82	9	2
WY SHERIDAN	SHR	207	+111	+37	3579	140	223	4	7

December Weather and Crop Summary

WEATHER SUMMARY

HIGHLIGHTS: A succession of frigid arctic outbreaks pushed into the northern Plains early in the month, and by the third week covered all of the Nation except the Southwest. Many record-low temperatures were broken. The third week of the month was one of the coldest on record. Frigid air pushed into the vegetable and citrus areas of southern Texas and then moved eastward and covered much of Florida. Low temperatures, below 20°F, severely damaged citrus fruit and trees and destroyed vegetables. After three days of freezing weather, afternoon temperatures rose to 80°F in central Florida and tempered the salvage operation. Snow covered much of the Nation, offering a protective blanket to winter grains. Snow cover reached as far south as northern Texas, over the Appalachians, and through the Northeast. Freezing rain fell from eastern Texas and Arkansas to northern Georgia and throughout the East Coast States to the mid-Atlantic area. In contrast to the severely cold weather, the Southwest remained warmer than normal all month. At the end of the month, warmer Pacific air moved into the West and temperatures rose to above freezing for the first time in many weeks over the Plateau, the Rockies, and the high Plains.

A low-pressure system moved rapidly from the Gulf of Mexico northeastward through New England during the first three days of the month. Rain spread across the South and through the East Coast States to the mid-Atlantic States and then along the coast to New England. Snow fell from the central Plains to New England, with some freezing rain from the upper Ohio Valley into Pennsylvania.

FIRST WEEK...Light to moderate precipitation fell from the lower and middle Mississippi Valley through New England. Thunderstorms and occaisional tornadoes plagued the South from eastern Texas to Georgia and the Carolinas. Snow fell over the Plateau and from the northern and central Rockies through the northern Plains and Great Lakes region. Snow reached as far south as central Kansas and from the central Appalachians to central New England. Moderate to heavy rain fell along the west coast from northern California to Washington, and lighter rain pushed into southern California. Average temperatures were much colder than normal in the central and northern Plains and warmer than normal in the East, South, and along the west coast.

SECOND WEEK...Unseasonably cold weather pushed into the northern Plains and moved southward through most of Texas and the lower Mississippi Valley. Average temperatures were in the subzero range from the northern Rockies to the western Great Lakes and southward to northern Kansas. Showers and thunderstorms developed in the lower Mississippi Valley and moved across the South. Rain was moderate to heavy through the East Coast States to southern New England. Late in the week unseasonable snow fell from the Texas Panhandle to northern Alabama. Snow covered the Rockies, the Plains to northern Texas, the Great Lakes region, and western New England.

THIRD WEEK...Outbreaks of arctic air brought one of the coldest weeks in the history of weather records. Average temperatures were as much as 42°F colder than normal in parts of Montana, where Havre registered a low of -50°F, and 36°F colder than normal in most of the central Plains. Subzero temperatures covered the northern two-thirds of the Nation. In sharp contrast, average temperatures in the Southwest were as much as 12°F warmer than normal. At the end of the week, freezing temperatures reached into the southern Texas citrus area and adjacent parts of Mexico, and then moved over the Florida citrus area. Damage to citrus fruit and trees, and vegetables was severe. A blanket of snow covered most of the winter grain areas, but freezing rain mixed with snow plagued areas from eastern Texas across the South and up the east coast.

FOURTH WEEK...Abnormally cold weather continued early in the week and brought a hard freeze to the Texas and Forida citrus and vegetable areas. Another surge of arctic air at midweek pushed into the Pacific Northwest and then southward through Texas to northern Florida. Daytime temperatures in Florida rose to near 80°F between the freezes. Much warmer air from the Pacific moved into the Nation at the end of the week and brought above-freezing temperatures to the Plateau, Rockies and high Plains for the first time in many weeks. The East remained cold. Some precipitation covered most of the Nation, mostly in the form of snow. Freezing rain covered much of the South from eastern Texas and Arkansas to Georgia and up the east coast to southern New England. Heavy thunderstorms brought flooding to the Southeast.

HARVEST PROGRESS

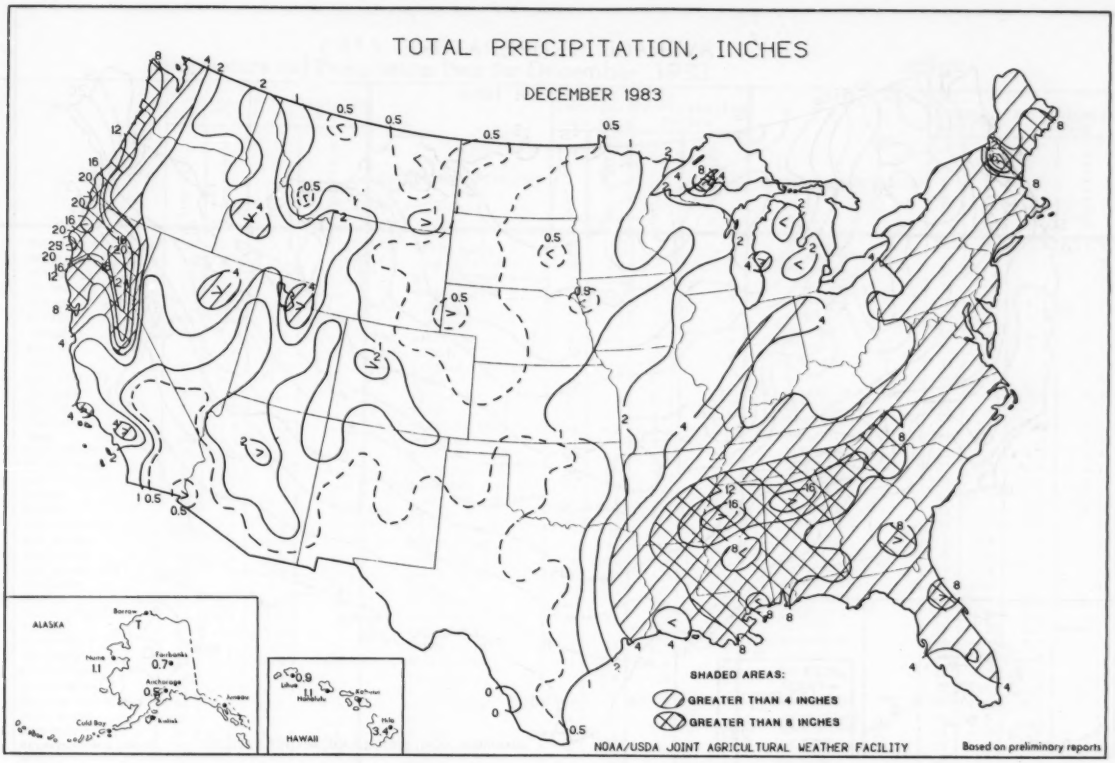
Torrential rains during early December slowed harvest and flooded low lying areas of the Delta States and Southeast. Standing water damaged some soybeans remaining for harvest in those areas and wet fields continued to delay completion of fieldwork in northern areas. At midmonth, harvest of the remaining acreage of corn and soybeans moved ahead over frozen fields in the Corn Belt until late in the month when snow stopped harvest. Only a few fields remain for harvest in most areas. Sleet and freezing rain halted soybean harvesting in the Southeast as the month ended. Cotton harvesting was ahead of schedule during December and centered on the southern Plains and the Southwest. At the month's end, harvesting was virtually complete except in New Mexico and the southern Plains where snow, ice, and freezing rain prevented completion. Harvesting reached 98% completion by December 25, compared with 94% average. Except for the Southwest, Arctic air covered the Nation late in the month and brought record lows in many areas. Freezing temperatures moved into the Rio Grande Valley of Texas and central Florida causing severe damage to citrus and vegetables. Growers salvaged some vegetables and citrus and replanted vegetable fields as the month ended.

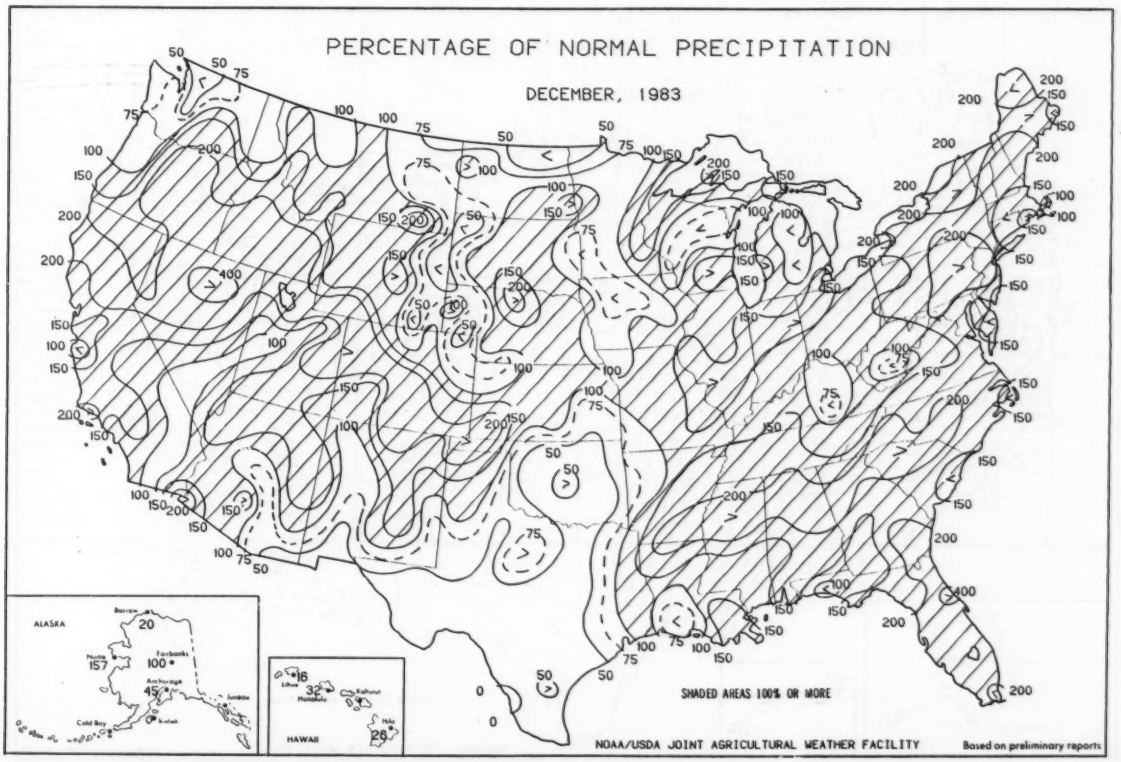
WINTER WHEAT

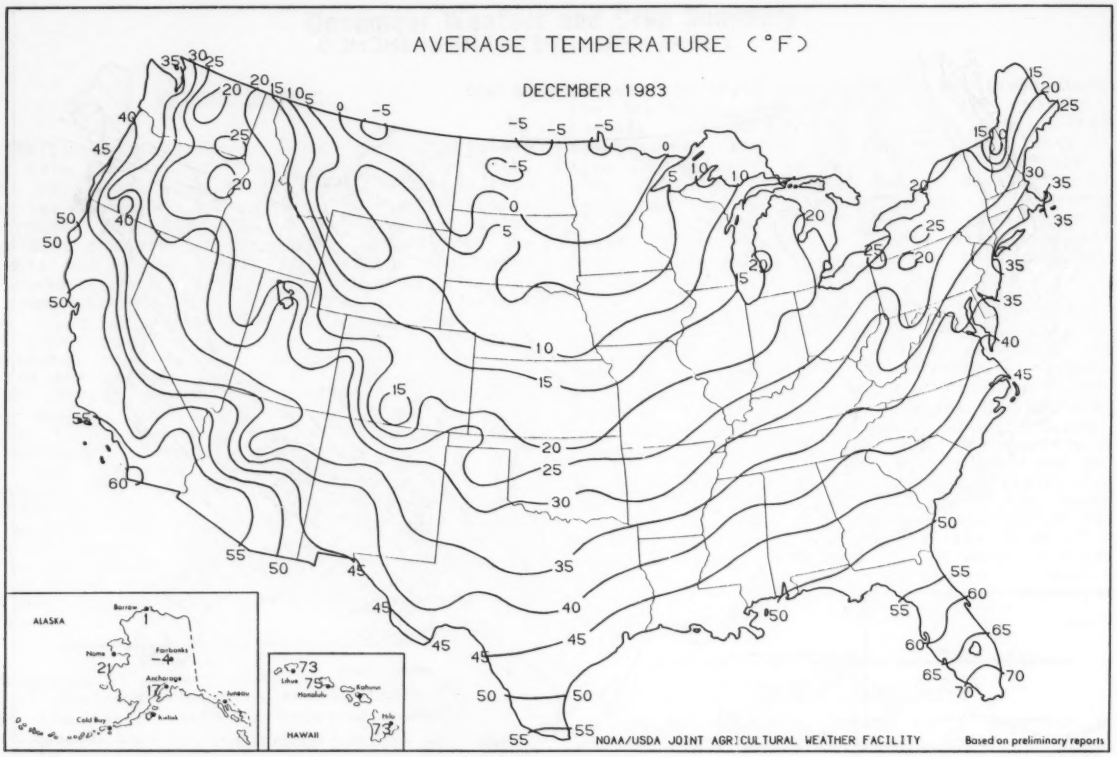
Winter wheat seeding was finished in most areas by early December except in California and in some southeastern areas where a small portion of the crop had not been seeded. Wheat had emerged on 93% of the U.S. acreage. Progress lagged normal only in parts of Colorado and Kansas where dry soils had delayed seedings and slowed emergence. Precipitation was needed from western Kansas southward.

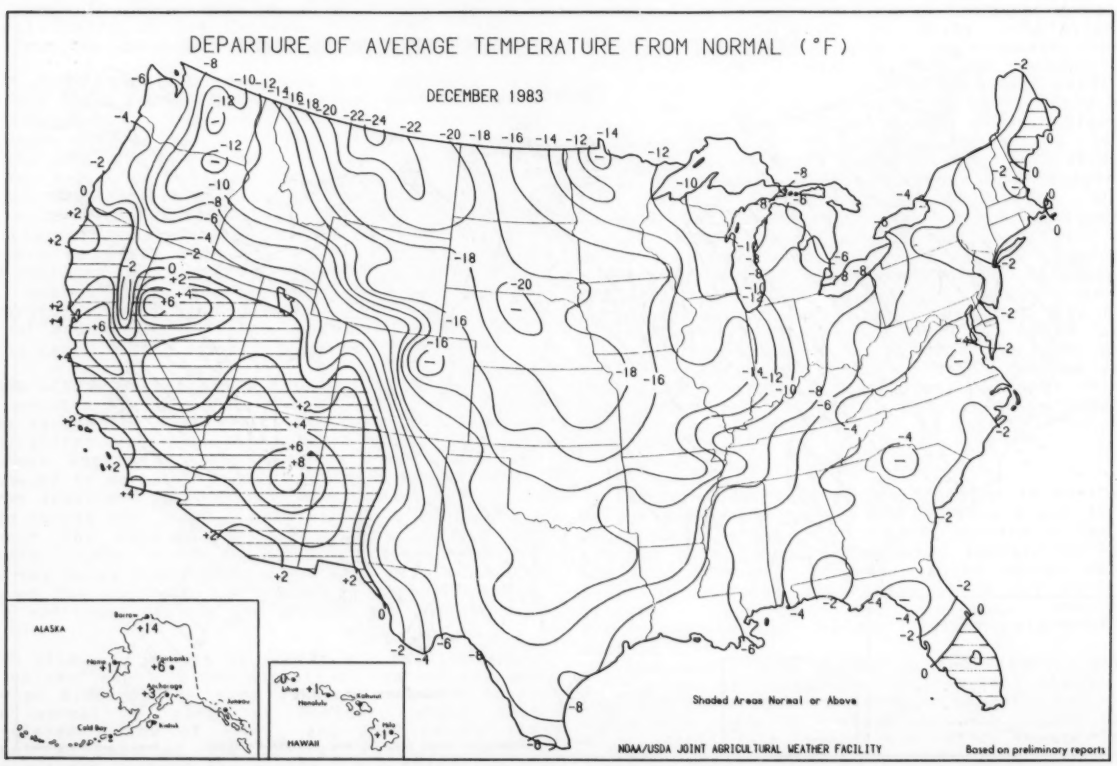
Abnormally cold weather pushed into the Nations midsection at midmonth threatening wheat with possible winterkill. However, most areas had sufficient snow cover to protect the crop. Late in the month, Arctic air covered the Nation except in the Southwest. Snow cover provided winter wheat with

(continued on p. 23)


TOTAL PRECIPITATION, INCHES
DECEMBER 1983
ALASKA
HAWAII
SHADED AREAS:
GREATER THAN 4 INCHES
GREATER THAN 8 INCHES
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports


PERCENTAGE OF NORMAL PRECIPITATION
DECEMBER, 1983
ALASKA
HAWAII
SHADED AREAS 100% OR MORE
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports


AVERAGE TEMPERATURE (°F)
DECEMBER 1983
ALASKA
HAWAII
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports


DEPARTURE OF AVERAGE TEMPERATURE FROM NORMAL (°F)
DECEMBER 1983
ALASKA
HAWAII
Shaded Areas Normal or Above
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports

Temperature and Precipitation Data for December 1983

States and Stations	Temperature °F Average	Temperature °F Departure	Precipitation Inches Total	Precipitation Inches Departure
AL BIRMINGHAM	40	- 6	16.4	11.4
MOBILE	48	- 5	8.4	3.0
MONTGOMERY	46	- 3	7.6	2.8
AK ANCHORAGE	17	3	.5	- .6
BARROW	1	14	0	- .2
FAIRBANKS	- 4	6	.7	.0
JUNEAU	--	--	--	--
KODIAK	--	--	--	--
NOME	21	17	1.1	.4
AZ FLAGSTAFF	34	4	2.5	.2
PHOENIX	57	4	1.2	.4
TUCSON	53	1	.6	- .3
WINSLOW	41	8	.8	.2
YUMA	60	3	.9	.6
AR FORT SMITH	29	-12	1.9	- 1.0
LITTLE ROCK	30	-13	7.5	3.3
CA BAKERSFIELD	51	3	1.2	.5
EUREKA	51	3	14.1	7.9
FRESNO	51	6	1.8	.2
LOS ANGELES	57	0	2.1	.5
RED BLUFF	47	0	10.3	6.7
SAN DIEGO	61	4	1.5	.1
SAN FRANCISCO	53	4	6.2	2.6
STOCKTON	50	4	3.5	1.1
CO DENVER	17	-16	.6	.0
GRAND JUNCTION	30	2	1.9	1.3
PUEBLO	21	-11	1.0	.7
CT BRIDGEPORT	33	- 1	4.7	.9
HARTFORD	28	- 1	6.0	1.8
DC WASHINGTON	36	- 3	5.9	2.7
FL APALACHICOLA	52	- 3	6.0	2.5
DAYTONA BEACH	58	- 2	12.0	9.8
FORT MYERS	66	1	3.2	1.6
JACKSONVILLE	52	- 3	6.4	3.8
KEY WEST	73	2	5.0	3.3
MIAMI	70	1	4.2	2.3
ORLANDO	61	- 1	5.3	3.5
TALLAHASSEE	51	- 2	6.2	1.6
TAMPA	60	- 1	4.7	2.6
WEST PALM BEACH	68	1	7.0	4.7
GA ATLANTA	40	- 5	9.3	5.0
AUGUSTA	44	- 3	5.2	2.0
MACON	46	- 3	5.5	1.5
SAVANNAH	49	- 2	4.8	2.0
HI HILO	73	1	3.4	- 9.5
HONOLULU	75	1	1.1	- 2.3
KAHULUI	--	--	--	--
LIHUE	73	0	.9	- 4.6
ID BOISE	23	- 9	4.3	3.0
LEWISTON	25	-10	1.1	- .2
POCATELLO	20	- 7	3.4	2.4
IL CAIRO	29	-10	4.9	.7
CHICAGO	14	-14	3.0	.9
MOLINE	14	-12	2.6	.7
PEORIA	15	-13	2.6	.6
ROCKFORD	13	-12	2.3	.4
SPRINGFIELD	16	-15	3.5	1.4
IN EVANSVILLE	26	-12	3.5	.0
FORT WAYNE	22	- 7	4.3	1.9
INDIANAPOLIS	20	-12	3.4	.4
SOUTH BEND	18	-11	3.2	.2
IA BURLINGTON	--	--	--	--
DES MOINES	10	-16	1.6	.5
DUBUQUE	10	-13	2.4	.5
SIOUX CITY	6	-17	.4	- .3
KS CONCORDIA	12	-19	.9	.2
DODGE CITY	18	-16	.6	.1
GOODLAND	15	-15	.3	- .1
TOPEKA	14	-18	1.3	.0
WICHITA	16	-18	1.1	.1
KY LEXINGTON	28	- 8	3.5	- .3
LOUISVILLE	28	- 9	4.0	- .5
LA BATON ROUGE	47	- 6	8.1	3.1
LAKE CHARLES	48	- 6	3.0	- 2.1
NEW ORLEANS	49	- 6	9.1	3.8
SHREVEPORT	37	-12	7.2	3.3
ME CARIBOU	14	- 2	5.0	1.8
PORTLAND	26	0	8.8	4.3
MD BALTIMORE	33	- 4	6.7	3.3
MA BOSTON	32	- 2	4.9	.4
CHATHAM	35	0	4.3	- .7
MI ALPENA	19	- 5	1.9	- .1
DETROIT	21	- 8	3.8	1.3
FLINT	20	- 7	1.9	- .1
GRAND RAPIDS	19	- 8	2.8	.2
HOUGHTON LAKE	17	- 6	1.7	- .3
LANSING	18	- 9	1.9	- .3
MARQUETTE	9	- 9	3.4	1.0
MUSKEGON	21	- 7	4.1	1.5
SAULT STE. MARIE	11	- 9	3.0	.4
MN DULUTH	2	-12	2.0	.7
INT'L FALLS	- 4	-12	.7	- .2
MINNEAPOLIS	4	-15	1.5	.6
ROCHESTER	3	-16	1.0	.2
SAINT CLOUD	0	-15	.9	.0
MS JACKSON	42	- 7	7.0	1.6
MERIDIAN	44	- 4	6.6	.9
MO COLUMBIA	18	-15	2.7	.7
KANSAS CITY	13	-19	1.4	.0
SAINT LOUIS	20	-14	3.7	1.5
SPRINGFIELD	22	-14	2.6	.0
MT BILLINGS	9	-18	.9	.1
GLASGOW	- 3	-20	.3	- .1
GREAT FALLS	4	-22	.7	- .1
HAVRE	- 5	-24	.5	.0
HELENA	6	-18	.8	.2
KALISPELL	8	-16	1.7	.3
MILES CITY	1	-21	.3	- .2
MISSOULA	12	-13	1.8	.6
NE GRAND ISLAND	8	-18	.8	.1
LINCOLN	8	-19	.7	.0
NORFOLK	7	-17	.7	.1
NORTH PLATTE	8	-18	.5	.1
OMAHA	8	-18	.7	- .1
VALENTINE	4	-20	.6	.3
NV ELY	27	1	1.5	.7
LAS VEGAS	48	3	.4	.1
RENO	39	6	1.5	.3
WINNEMUCCA	31	1	3.6	2.7
NH CONCORD	23	- 2	5.4	2.0
NJ ATLANTIC CITY	34	- 2	5.1	1.5
TRENTON	--	--	--	--
NM ALBUQUERQUE	37	1	.4	- .1
ROSWELL	--	--	--	--
NY ALBANY	24	- 3	5.1	2.1
BINGHAMTON	24	- 2	6.1	3.1
BUFFALO	23	- 6	7.3	3.9
NEW YORK	35	- 1	6.6	2.9
ROCHESTER	25	- 4	4.5	1.9
SYRACUSE	22	- 6	5.5	2.3
NC ASHEVILLE	36	- 3	8.3	4.8
CHARLOTTE	40	- 3	7.5	4.1
GREENSBORO	37	- 3	4.4	1.0
HATTERAS	47	- 3	6.1	1.8
RALEIGH	40	- 2	6.7	3.6
WILMINGTON	47	- 1	5.2	1.8
ND BISMARCK	- 1	-16	.5	.0
FARGO	0	-13	.9	.3
WILLISTON	- 5	-20	.6	.0
OH AKRON-CANTON	25	- 5	3.4	.7
CINCINNATI	25	- 9	2.8	- .2
CLEVELAND	23	- 8	2.9	.1
COLUMBUS	25	- 7	3.2	.6
DAYTON	22	-12	2.9	.4
TOLEDO	20	- 8	3.9	1.3
YOUNGSTOWN	24	- 5	3.7	.9
OK OKLAHOMA CITY	26	-14	.7	- .5
TULSA	27	-13	.6	- 1.2
OR ASTORIA	38	- 5	9.5	- 2.1
BURNS	22	- 6	3.1	2.2
MEDFORD	40	2	6.7	3.2
PENDLETON	23	-13	3.5	1.8
PORTLAND	36	- 5	5.3	- 1.1
SALEM	38	- 3	6.5	- .6
PA ALLENTOWN	29	- 3	7.6	3.9
ERIE	26	- 4	4.0	.7
HARRISBURG	29	- 4	7.6	4.4
PHILADELPHIA	33	- 3	7.4	3.9
PITTSBURGH	25	- 6	4.3	1.7
SCRANTON	27	- 3	6.6	4.1
RI PROVIDENCE	33	1	7.7	3.2
SC CHARLESTON	49	- 1	4.3	1.2
COLUMBIA	43	- 4	6.6	3.1
GREENVILLE	39	- 4	8.5	4.6
SD ABERDEEN	- 1	-18	.6	.1
HURON	3	-16	.5	.0
RAPID CITY	8	-18	.5	.0
SIOUX FALLS	2	-18	.7	.0
TN CHATTANOOGA	37	- 5	8.3	3.2
KNOXVILLE	36	- 5	5.7	1.1
MEMPHIS	35	- 8	8.7	3.8
NASHVILLE	34	- 7	7.7	3.1
TX ABILENE	34	-12	.8	- .1
AMARILLO	25	-13	.6	.1
AUSTIN	42	-10	.6	- 1.5
BEAUMONT	49	- 6	6.5	1.9
BROWNSVILLE	55	- 7	.5	- .7
CORPUS CHRISTI	49	-10	.6	- .8
DEL RIO	45	- 8	.1	- .5
EL PASO	46	2	.2	- .2
FORT WORTH	35	-13	.8	- .9
GALVESTON	50	- 7	2.6	- 1.0
HOUSTON	46	- 8	3.7	.0
LUBBOCK	32	-10	.4	.0
MIDLAND	38	- 8	.3	- .2
SAN ANGELO	36	-12	.1	- .5
SAN ANTONIO	43	-10	.4	- 1.0
VICTORIA	47	- 9	.5	- 1.6
WACO	38	-12	.5	1.4
WICHITA FALLS	31	-13	.9	- .3
UT BLANDING	--	--	1.4	.1
SALT LAKE CITY	31	1	4.4	3.0
VT BURLINGTON	22	- 1	5.2	2.8
VA LYNCHBURG	35	- 3	5.5	2.3
NORFOLK	42	- 2	6.1	2.9
RICHMOND	36	- 4	4.5	1.1
ROANOKE	35	- 3	5.6	2.7
WA COLVILLE	18	-10	2.3	- .2
OMAK	22	- 5	1.3	- .5
QUILLAYUTE	35	- 6	8.9	- 7.4
SEATTLE-TACOMA	36	- 5	5.0	- 1.3
SPOKANE	16	-13	2.4	- .1
WALLA-WALLA	26	-11	3.5	1.3
YAKIMA	22	-10	1.9	.6
WV BECKLEY	29	- 5	2.3	- .9
CHARLESTON	32	- 5	3.2	- .1
HUNTINGTON	30	- 7	3.1	.0
PARKERSBURG	--	--	--	--
WI GREEN BAY	11	-11	1.2	- .2
LA CROSSE	6	-16	.7	- .4
MADISON	11	-11	2.3	.8
MILWAUKEE	14	-11	2.9	.9
WY CASPER	11	-16	.8	.3
CHEYENNE	15	-14	.5	.1
LANDER	6	-17	.6	.1
SHERIDAN	7	-18	.8	.1
PR SAN JUAN	80	2	3.4	- 1.1

Based on 1951-80 normals.

Heating Degree Days (Base 65° F.)

December 1983

ALA. Birmingham	770	MAINE, Caribou	1564	OKLA. Okla. City	1207
Mobile	529	Portland	1198	Tulsa	1179
Montgomery	605	MD. Baltimore	979	OREG. Astoria	834
ALASKA, Anchorage	1491	MASS. Boston	1012	Burns	1339
Barrow	1946	Chatham	930	Medford	757
Fairbanks	2126	MICH. Alpena	1427	Pendleton	1292
Nome	-	Detroit	1367	Portland	880
ARIZ. Flagstaff	950	Flint	1385	Salem	821
Phoenix	236	Grand Rapids	1414	PA. Allentown	1121
Tucson	348	Houghton Lake	1490	Erie	1207
Winslow	744	Lansing	1456	Harrisburg	980
Yuma	156	Marquette	1740	Philadelphia	981
ARK. Fort Smith	1113	S. Ste. Marie	1665	Pittsburgh	1223
Little Rock	1092	MINN. Duluth	1959	Scranton	1169
CALIF. Bakersfield	439	Internatl Falls	2159	R.I. Providence	1001
Eureka	443	Minneapolis	1901	S.C. Charleston	498
Fresno	420	Rochester	1925	Columbia	666
Los Angeles	237	St. Cloud	2026	Greenville	792
Red Bluff	560	MISS. Jackson	716	S. DAK. Aberdeen	2030
Stockton	451	Meridian	658	Huron	1926
San Diego	130	MO. Columbia	1465	Rapid City	1762
San Francisco	354	Kansas City	1602	Sioux Falls	1947
COLO. Denver	1469	St. Louis	1373	TENN. Chattanooga	863
Grand Junction	1066	Springfield	1343	Knoxville	878
Pueblo	1365	MONT. Billings	1741	Memphis	935
CONN. Bridgeport	981	Glasgow	2113	Nashville	956
Hartford	1135	Great Falls	1888	TEX. Abilene	947
D.C. Washington	890	Havre	2176	Amarillo	1241
FLA. Apalachicola	407	Helena	1842	Austin	721
Ft. Myers	103	Kalispell	1769	Beaumont	424
Jacksonville	412	Miles City	1995	Brownsville	365
Key West	36	Missoula	1647	Corpus Christi	511
Miami	69	NEBR. Grand Island	1751	Del Rio	625
Orlando	188	Lincoln	1758	El Paso	599
W. Palm Beach	82	Norfolk	1798	Fort Worth	933
Tallahassee	446	North Platte	1790	Galveston	491
Tampa	214	Omaha	1768	Houston	606
GA. Atlanta	770	Valentine	1884	Lubbock	1025
Augusta	630	NEV. Ely	1159	Midland	844
Macon	591	Las Vegas	524	San Angelo	883
Savannah	513	Reno	805	San Antonio	681
IDAHO, Boise	1290	Winnemucca	1032	Victoria	580
Lewiston	1224	N.H. Concord	1283	Waco	823
Pocatello	1392	N.J. Atlantic City	958	Wichita Falls	1059
ILL. Cairo	1117	N. MEX. Albuquerque	875	UTAH, Milford	1051
Chicago	1568	N.Y. Albany	1265	Salt Lake City	1017
Moline	1578	Binghamton	1271	VT. Burlington	1317
Peoria	1541	Buffalo	1304	VA. Lynchburg	926
Rockford	1615	New York	919	Norfolk	718
Springfield	1512	Rochester	1229	Richmond	887
IND. Evansville	1195	Syracuse	1312	Roanoke	924
Fort Wayne	1352	N.C. Asheville	882	WASH. Colville	-
Indianapolis	1386	Charlotte	780	Quillayute	915
South Bend	1440	Greensboro	876	Seattle-Tacoma	890
IOWA, Des Moines	1709	Hatteras	535	Spokane	1508
Dubuque	1716	Raleigh	784	Walla Walla	1219
Souix City	1825	Wilmington	551	Yakima	1320
KANS. Concordia	1634	N. DAK. Bismarck	2049	W. VA. Beckley	1126
Dodge City	1442	Fargo	2023	Charleston	1019
Goodland	1556	Williston	2157	Huntington	1069
Topeka	1565	OHIO. Akron-Canton	1244	WIS. Green Bay	1682
Wichita	1504	Cinncinnati	1247	Madison	1678
KY. Lexington	1128	Cleveland	1291	Milwaukee	1565
Louisville	1128	Columbus	1236	WYO. Casper	1673
LA. Baton Rouge	571	Dayton	1331	Cheyenne	1547
Lake Charles	533	Toledo	1388	Lander	1820
New Orleans	483	Youngstown	1251	Sheridan	1802
Shreveport	848				

Based on 1951-80 normals.

National Agricultural Summary

January 2 to 8

HIGHLIGHTS: Above-normal temperatures across the Great Plains reduced snow cover, leaving winter wheat vulnerable to winterkill in some areas. In the South, about three days were favorable for fieldwork, permitting harvesting to continue on drier soils. Soil moisture supplies continued mostly adequate to surplus throughout the Nation, except in portions of Texas where additional moisture would benefit the recovery of freeze-damaged small grains. Frozen soils aided the harvesting of the few remaining corn and soybean fields and the applications of top dressing to winter wheat in some northern areas. Winter wheat rated fair to good in the major producing regions with no major reports of winterkill from the previous freeze. Cotton harvesting centered in Texas and New Mexico. Showers slowed completion of harvesting in Arizona and New Mexico, but open weather allowed rapid progress in Texas. The harvest of freeze-damaged citrus for processing continued very active in Florida and Texas. Vegetable producers replanted for late-winter and spring crops in Florida. Pastures were in mostly fair condition throughout the South. Warmer temperatures reduced livestock stress but producers continued heavy supplemental feeding in most regions. Feed supplies were generally adequate but some spot shortages of hay were reported.

SMALL GRAINS: Winter wheat was generally in fair to good condition throughout the major producing areas. Warmer weather melted snow across a large portion of the Great Plains and made the crop more vulnerable to freeze damage. Dry soils at planting produced spotty wheat stands in West-central Kansas, but elsewhere crop stands were generally good. Only minimal wheat damage was reported. Winter wheat was in good to fair condition in Oklahoma. No significant winterkill was reported, but weed problems threatened some stands in western counties. Wheat and oat fields showed stress from cold weather and had little or no growth across most of Texas. Dryland wheat was hurt badly by the freeze and limited grazing on the Plains. Top growth was killed in central Texas but the wheat crop appears to be recovering. All major winter wheat producing areas in Texas need additional moisture for recovery from the previous freeze. Lack of snow cover is leaving winter wheat vulnerable to freeze and wind damage in Montana but so far the crop is in mostly good condition.

OTHER CROPS: Cotton harvesting in Texas reached 99% completion, ahead of the 96% for both last year and the average. Harvesting was active on the High and Low Plains and will be finished soon if dry weather continues. Picking was 96% complete in New Mexico, showers slowed progress. Rain and wet soils delayed harvesting of the remaining acreage in Arizona. California cotton producers prepared fields for next season's crop.

Indiana farmers took advantage of the frozen soil to continue harvesting the few remaining corn fields. Some soybeans were harvested across the South where soil conditions were favorable, but many fields were too muddy to support harvesting equipment.

Tobacco producers continued to grade and market the 1983 crop. Plantbeds were prepared for planting this year's crop. Kentucky burley growers prepared for the reopening of their market.

Sugarcane harvesting was very active in Florida. Farmers expect to cut light freeze-damaged cane. Young cane, killed back by the earlier freeze, is expected to recover. Harvesting continued in the Lower Rio Grande Valley of Texas where sugar levels were dropping on freeze-damaged cane.

FRUITS AND NUTS: Citrus trees in northern Florida had abundant brown leaves in areas hit with extremely cold temperatures. Leaves were still green in areas where temperatures were milder. Fruit droppage ranged from extreme in the north to light in undamaged areas. Producers continued picking for processing. The fresh-fruit embargo was lifted on January 9th. The salvage of the remaining citrus crop for juice was active in the Rio Grande Valley of Texas. Most processing plants were in continuous operation. The demand for grapefruit was strong in Arizona. Lemon and tangerine picking was steady. Navel orange harvesting was winding down in the Central Valley. Citrus groves were in good condition and fruit was developing normally. Citrus harvesting was slowed by wet conditions in California's San Joaquin Valley but the Desert harvest was active. A few Sacramento Valley orchards were flooded because of heavy streamflow. Producers pruned trees and vines and sprayed orchards and vineyards.

VEGETABLES: Cool nights and mild days prevailed in Florida's vegetable areas. Total shipments declined 7% from the previous week. All crops declined except celery, Chinese cabbage, escarole, peppers, and tomatoes which held steady, and lettuce which increased. Most volume will come from the Pompano and Dade County areas. The planting of spring crops was very active. Most vegetables in the Rio Grande Valley of Texas suffered freeze damage. Yield and production are expected to be reduced. Some replaning occurred but was not extensive. In the San Antonio-Winter Garden area, all crops were heavily damaged by the previous freeze. Quality and quantity will be reduced. In Yuma County, Arizona, lettuce, broccoli, and cauliflower packing increased. Harvesting was active in the Salt River Valley. Lettuce harvesting was very light in the Parker-Poston and Marana areas. Artichoke, asparagus, carrot, and cauliflower harvesting were light in California, while broccoli and celery volumes were moderate. Lettuce harvesting was in full swing in the Imperial Valley but declined in the Palo Verde Valley. Potato digging was active in the Kern, Riverside, Stockton, and Salinas-Watsonville areas.

PASTURES AND LIVESTOCK: Warmer temperatures reduced livestock stress but most pastures, across the South remained dormant and provided limited grazing. Producers continued heavy supplemental feeding in most regions. Feed and hay supplies were mostly adequate. However, some spot shortages of hay were reported because of the heavy feeding.

State Summaries of Weather and Agriculture

These summaries provide brief descriptions of crop and weather conditions important on a national scale. More detailed data are available in Weather and Crop Bulletins published each Monday by SRS State Statistical Offices in cooperation with the National Weather Service.

ALABAMA: Temperature averaged near normal. No rainfall.

ARIZONA: Very slow moving upper low pressure system spread rain over southern half of State. Amounts ranged 0.10 in. over Colorado River Valley to over 1.00 in. extreme southeast, Nogales reported 1.88 in. Amounts over Central Basin, White Mountains mostly 0.10 to 0.50 in., snow level over 7,000 feet. Fair to partly cloudy over northern part of State. Temperatures mild, averaged 3 to 8° above seasonal normals.

Yuma lettuce packing increased, volumes were normal. Yuma cauliflower, broccoli volumes up. Some leaf lettuce harvested. Lettuce harvest very light Parker-Poston, Marana areas, complete Salt River Valley. Mixed vegetable harvest active Salt River Valley. Stronger demand for greens, cabbage brought larger volumes to market place. Cotton harvest complete or winding down all producing areas. Rain, wet soils delayed harvest areas not complete. Wet soils may prevent final harvest some acreage Pinal County. Seedbed preparation, planting wheat, barley interrupted by rain. Progress good, 75 to 80% seeded Statewide. Earlier plantings reached or passed jointing stage of maturity. Grapefruit demand stronger. Lemon picking steady Yuma, Maricopa Counties. Tangerines moved in volume, Navel orange picking winding down Central Valley. Quality good to excellent. Immature fruit sizing, developing normally, groves good condition.

ARKANSAS: Dry mild week with above average temperatures in all sections. Temperatures averaged 1 to 10° above normal. Highest temperature 73°; lowest 15°. Only trace amounts of rainfall. Very little soybeans still in fields. Most pastures damaged by frost, but some rye grass left undamaged. Dairies continued to purchase hay. Wheat greening and in good condition.

CALIFORNIA: Another week with warmer than normal temperatures virtually everywhere across the State. Only the extreme northeastern corner was a few degrees cooler than normal. In the southeast Desert region and portions of the Sierra Nevada, temperatures averaged around 10° warmer than normal. High pressure brought the warm air but in the fog-bound Central Valley. Some locations had weekly means right at the seasonal normal. There was virtually no precipitation. Fog drip or light drizzle from the low overcast produced 0.02 in. in isolated instances. Cold, foggy weather.

Some fields flooded. Limited field activity. Winter grains maturing slowly. Wheat planting finishing. Cotton growers prepare next season's fields. Desert alfalfa rain damage. Alfalfa hay in good demand. Routine winter cultural practices, main activity, including pruning of trees and vines application of dormant sprays, fungicides and herbicides. A few Sacramento Valley orchards flooded. Growers removing older trees and vines, San Joaquin Valley. Bacon avocados packed, southern areas. Desert citrus harvest active. Citrus harvest slowed by wet conditions, San Joaquin Valley. Artichoke, asparagus volume very light. Broccoli harvest Central Coast, San Joaquin Valley, Southern California with volume moderate. Brussels sprouts harvest hampered by wet fields. Carrot harvest fairly light. Cauliflower supply light Central Coast. Harvest continues San Joaquin Valley, Southern California. Celery harvest moderate South Coast. Lettuce harvest full swing Imperial Valley, declining Palo Verde Valley. Potato digging Kern, Riverside, Stockton, Salinas-Watsonville. Storage potatoes moving Tulelake-Butte Valley. Strawberries blooming South Coast. Supplemental feeding continues most areas. Cool, overcast, foggy days limited grass growth. Livestock in good condition. Stock water supplies adequate.

COLORADO: A high pressure system remained throughout the week, resulting in stable weather with little or no precipitation. Temperatures were well above normal on the eastern plains but well below normal in the mountains and on the western slope, due to the cold air trapped and retained in the valleys.

FLORIDA: A very strong and cold Arctic high pressure system on 1st, produced a hard freeze across northern, north central areas with freezing to near freezing in central area. By 2nd the freezing line receded to northern 1/4 of State, by 5th only northern portions were below freezing, no significant rainfall was recorded. Relative humidity was 20 to 30% with marked drying Statewide, 7th and 8th cool dry air continued Statewide, with northwest portion dipping below freezing, sunshine and relatively high pressure prevailed with little precipitation.

Soil moisture generally adequate to surplus Statewide. Few western counties reported shortage. Sugarcane harvest very active. Most light freeze damaged cane expected to be harvested. Young cane killed back by freeze earlier expected to recover. Small grains damaged by freeze, most should recover. Reduced stands expected. Some tobacco plants in beds damaged. Some reseeding necessary. Land preparation spring crops underway. Pasture condition poor to fair across the State due to the extreme cold weather conditions. Cattle condition has declined and feed supplies short. Cattle in mostly fair condition Statewide. Citrus trees colder northern areas brown leaves in abundance, trees in milder areas still with green leaves. Fruit drop ranges from extreme in north on some crops to light in undamaged areas on most trees. Harvest very active for processing. Fresh fruit embargo lifted on 9th. Temperatures were generally below normal vegetable growing areas. Cool nights, mild days prevailed. Light scattered frost occurred central, southwest areas. Very light rainfall occurred during week. Overall vegetable shipments declined 7% from previous week. Crops declining includes snap beans, cabbage, carrots, cauliflower, sweet corn, cucumbers, eggplant, parsley, radishes, squash, strawberries. Crops holding steady were celery, Chinese cabbage, escarole, peppers, tomatoes. Shipments of lettuce increased. Salvage harvest of cabbage, tomatoes, carrots, peppers in hard hit areas winding down. Most volume will now come from the Pompano and Dade County areas. Light picking strawberries continues. Most crops showing signs of recovery. Planting of spring crops active.

GEORGIA: Very cold early in week. Temperatures 20 to 25° below normal with gradual warming to near normal readings by week's end. Temperatures overall about 5° below normal north to about 15° below normal south. Patchy light rain on 4th. Barley 0.10 in. extreme north, only trace amounts elsewhere. A dry 7th and 8th with temperatures near normal north, 5° below normal south.

Soil moisture surplus except adequate north and southeast. Main activities: Land preparation southern part of State, tobacco bed preparation; harvesting soybeans and pecans, small grain topdressing. Small grains mostly fair condition. Oats damaged by freeze, other small grains frozen back. Pastures rated poor to mostly fair. Cattle mostly fair to good. Hogs fair to good.

HAWAII: Variable weather prevailed throughout the State. Sunny skies and warm temperatures early in the week gave way to occasionally heavy showers at midweek. By the weekend. Skies had cleared and overnight temperatures were relatively cool.

The rainfall benefitted most crops in the State but the cool temperatures slowed crop development. Supplies of head lettuce and cabbage will continue heavy. Chinese cabbage production will also be heavy but plantins sustained some injury from heavy rains during Christmas. Export of greenhouse cucumbers continues. Banana supplies steady. Papaya supplies seasonal declining.

IDAHO: A ridge of high pressure kept the south portion of the State nearly free of significant precipitation and allowed weak Pacific systems to cross the northern part of the State. As a result, precipitation was below normal in the south while varying from below to above normal in the north. In the south, high pressure trapped cold stagnant air in the valleys creating a cool, foggy period with only minor day to day variations. Temperatures varied from near normal to slightly above normal in the south with temperatures in the north averaging 5 to 9° above normal. The warmest spot in the State was Lewiston with an average of 9° above normal, while Salmon had an average of 7° below normal.

Moderate temperatures melted snow creating mud and runoff problems in some areas. Snow cover on some fields has been depleted. Cull cows were marketed in several areas. Some movement of potatoes was reported. Feed supplies were tight in a few spots. Mud was creating some feeding problems in several areas.

ILLINOIS: Temperatures 1 to 8° above normal. Precipitation less than 0.10 in.

Wheat condition fair to good. Livestock condition mostly fair.

INDIANA: High temperatures averaged mid 30's to low 40's. Minimum temperatures low 20's north to upper 20's in south. Departures 3 to 6° above normal. Precipitation was light and under 0.10 in. north, zero elsewhere. Freeze depths of soil from 4 to 12 in.

Frozen soils permitting some late harvesting of corn in south, and topdressing wheat. Other activities include hauling manure, preparing tobacco for market, moving snow in north, attending herbicide, seed, fertilizer and marketing meetings, seeding clover, reparing damage from exteme cold of late December, cutting firewood, caring for livestock and usual chores. Only northern third of State still under heavy snow cover.

IOWA: A very warm, dry week. Temperatures averaged 15 to 20° warmer than the previous week and were 8 to 19° above normal. Very little precipitation with only a trace at most stations. Much of the snow cover melted with end of week snow depths from 1 to 6 in.

KANSAS: Temperatures averaged 40 to 43° west and south, 36 to 39° elsewhere--10 to 14° above normal. Precipitation averaged traces to 0.02 in. north central. Snow depths 1 in. or less north central and northeast.

Little progress in late crop harvest due to muddy field conditions. Spotty wheat stands west central due to dry planting conditions. Minimal wheat damage reported. Supplemental cattle feeding remained heavy in all areas.

KENTUCKY: Temperatures averaged from about normal over north to 3 to 8° above normal south. No intrusions of arctic air as most spots warmed into the 30's and 40's everyday. Precipitation was 0.25 in. or less with some places receiving no rain or snow.

Little or no snow cover. Burley markets reopen today. Pleasant winter weather conserving feed after extreme cold latter part of December.

LOUISIANA: Rainfall amounts ranged none to 0.24 in. Average temperatures ranged 1 to 6° above normal. High 76°, low 22°.

Activities: Routine chores and caring for livestock.

MARYLAND AND DELAWARE: Maryland: Temperatures were below normal and precipitation was under 0.10 in. Temperatures averaged 1° below normal in north and west and mostly 3 to 6° below normal elsewhere. Maximum temperatures were in the mid to upper 40's while minimums were single digit in western counties and 8 to 15° elsewhere. Precipitation was light; ranging from zero to 0.09 in. at Salisbury. The 7th was partly cloudy and breezy with high temperatures in the 40's and lows around 30. The 8th was considerably cloudy and cooler with high reaching the upper 30's and lows in the teens.

Delaware: Temperatures averaged 3 to 6° below normal while precipitation averaged 0.06 in. ranging from 0.02 in. at Georgetown to 0.11 in. at Milford. High temperatures were near 40 north to high 40's in the remainder of the State. Low temperatures were 5° at Wilmington to 10 to 12° elsewhere. The 7th was partly cloudy with highs near 40 and lows near 30. The 8th was cloudy with highs in the mid to upper 30's lows near 20°.

MICHIGAN: Temperatures averaged 4° above normal Statewide. Extremes were 39° in the lower Peninsula and -11° in the upper Peninsula. Precipitation averaged 0.20 in. Statewide with the lowest amounts falling in the southeastern part of the lower Peninsula and the largest amounts falling in the eastern part of the upper Peninsula.

MINNESOTA: Temperatures averaged 14 to 21° above normal. High: 47°, low: -19°. Precipitation average 0.10 to 0.19 in. below normal. Greatest reported weekly total: 0.23 in. Snowfall averaged 2 in. for the northeast and a trace to 1 in. elsewhere. Snow depth at week's end averaged 2 to 7 in. for the western 1/3 and southeast; and 10 to 20 in. elsewhere.

MISSISSIPPI: Temperatures were 1 to 5° below normal. Extremes 13 and 74°. Much warmer

on 6th and 7th than the first of the week. No rainfall reported.

Soil moisture adequate to surplus. Fieldwork 1.5 days suitable, 1.0 1983, 1.8 average. Supplies of hay and feed adequate to short. Wheat condition poor to fair. Pasture condition fair to poor. Livestock condition fair to good.

MISSOURI: Dry, warm air returned to the State as temperatures ranged from 5 to 9° above normal and 1° above normal over the Bootheel. Precipitation was nearly non-existent.

MONTANA: Temperatures took a sharp turn from the much below normal readings of a week ago to much above normal. In west and southwest temperatures averaged 10 to 15° above normal, while rest of State had temperatures 2 to 25° above normal. Snow cover Plains melted rapidly. By end of week, most of snow was gone. A few areas of west received normal precipitation during week, while the remainder of State was dry.

Winter wheat condition good. Lack of snow cover leaving crop vulnerable to freeze and wind damage. Livestock feed requirements greatly reduced, but concern for enough hay to last the winter remains. Livestock losses due to cold period not significant.

NEBRASKA: Temperatures 10 to 15° above normal. Trace amounts of precipiation except for 0.10 in. southeast.

NEVADA: A very strong surface high pressure system developed beginning of period and persisted through entire week. Precipitation of previous week north helped create a very unusual situation as the area of high pressure intensified. Low clouds and areas of dense fog developed most northern valleys which persisted both day and night throughout entire week. Southern and higher elevations north and central enjoyed sunshine. Daytime temperatures in northern valleys quite cool result of clouds and fog. Nighttime temperatures rather mild.

Livestock feeding operations hampered by muddy fields most areas.

NEW ENGLAND: Average precipitation ranged from a trace to 0.25 in. across the entire region. Snow fall was limited to flurry activity which resulted in no significant accumulation. Average temperatures ranged from the teens near the Canadian Border to around 30° around the south coast.

NEW JERSEY: Temperatures 2° below normal, averaging 28° north, 31° south and 32° coastal. Extremes 7 and 46°. Precipitation was well below normal, averaging 0.01 in. north, 0.05 in. south and 0.06 in. coastal. The heaviest 24-hour total reported 0.12 in. on 4th to 5th. Heaviest 24-hour snowfall 1 in. on 8th to 9th. Depth of snow on ground 9th 1 in.

Fieldwork: Farmers tending to winter chores and livestock.

NEW MEXICO: Average temperatures between 5 and 10° above normal most sections. Minimum temperature: -6°, northern mountains. Maximum temperature: 67°, northern mountains and southern desert. Minor storm system brought scattered showers to west early in week, southern border area during weekend. Few locations in south central, southwestern sections received 0.50 in. rain.

Soil moisture supplies short to adequate. Cotton harvest 96% complete. Irrigated small grain fields good condition: Dryland fields fair, needing moisture. Mesilla Valley: Pecan harvest winding down. Red chile harvest complete. Spring lettuce planting wrapping up. Cattle, sheep requiring extra care and supplemental feeding, water hauling, ice breaking, etc. Range forage supplies far less abundant than normal this winter.

NEW YORK: The week started on a cold note but warmed up by week's end. Temperatures: 3 to 6° above normal. Precipitation: 0.50 in. below normal. The water content of snow on the ground 2.00 to 5.00 in. in the northern mountains and 1.00 in. elsewhere except in southeast where the ground was bare.

NORTH CAROLINA: Temperatures below normal Statewide. Precipitation: Very little.

Soil moisture: 1% short, 66% adequate, 33% surplus. Days suitable for fieldwork: 3.0. Condition: Wheat: 9% poor, 42% fair, 46% good, 3% excellent. Oats: 5% poor, 49% fair, 44% good, 2% excellent. Barley: 4% poor, 40% fair, 53% good, 3% excellent. Rye: 9% poor, 38% fair, 52% good, 1% excellent. Harvests: Soybeans: 99%, 1982 100%, average 100%. Farm feed supplies: Hay and roughage: 19% short, 80% adequate, 1% surplus. Feed grains: 14% short, 83% adequate, 3% surplus. Major farm activities: Soybean harvest, cutting firewood, tending livestock, general farm maintenance, pruning fruit trees, marketing burley tobacco and preparing tobacco beds.

NORTH DAKOTA: Weather for the week very mild and dry. Average temperatures from 20 to 25° above zero. Precipitation only a trace across the State. Highest temperature was 48° above, low reading was -5°. Moisture 0.10 in. or less at all reporting stations and was 0.10 to 0.14 in. below normal. Snowfall only a trace with snow depths at the end of the week generally less than 5 in. and only a trace in some areas.

Milder weather mixed blessing. It was welcomed by livestock producers and for general comfort but sharply reduced much needed snow cover. Some wind erosion evident on bare fields.

OHIO: Temperatures close to seasonal levels. Extremes ranging from teens to mid-40's. Precipitation limited. Most totals below 0.10 in. Four inch bare soil temperatures averaged in the upper 20's.

Winter wheat in good condition.

OKLAHOMA: Temperatures averaged from 3° above normal south central, east central, and southeast to 9° above normal Panhandle. No precipitation occurred during week.

Warm weather aided crop growth and development. Melted snow provided pasture grazing but many producers still feeding livestock. No significant winterkill reported. Weed problems threatened small grains in west. Wheat in good to fair condition. Pastures and livestock in fair condition.

OREGON: Scattered precipitation occurred along coast and Williamette Valley, leaving from 0.50 to 1.00 in. The remainder of State began a drying trend and recorded less than 0.20 in. for the week. Snow covers the ground in many eastern and southern areas. Temperatures ran 7° above normal west of Cascades, and 3 to 5° above normal eastward.

Over most of east winter wheat fields were protected by heavy snow cover. Areas with light snow cover, mainly in the west, expect

some damage due to recent record cold temperatures. Dormant spraying of fruit trees in progress and pruning has begun. Some damage to berry, fruit and nut crops also expected. Stress on livestock from extreme weather conditions has lessened, but supplemental feeding still required in most areas.

PENNSYLVANIA: A series of weak fronts brought cloudy conditions but little precipitation. Most stations received under 0.25 in., mostly in flurries and sprinkles. Temperatures were around normal for most of the week but fell slightly below normal by week's end.

PUERTO RICO: No report available.

SOUTH CAROLINA: Temperatures climbed to near seasonal normals, then weekend colder Statewide. Showers not significant.

Growers checking fruit trees for cold injury, pruning. Farm activities included testing soils, applying needed lime, caring for livestock, planning farm activities for 1984.

SOUTH DAKOTA: Average temperatures 15 to 20° above normal. Extremes: 59 and -6°. The higs were mostly in the mid 40's to mid 50's, and the lows in the 10 to 20° range. Precipitation was sparse and very light across the State. No stations reported more than 0.20 in. The warm temperatures caused much snow melting across the State, leaving snow coverage at less than 1 in. in the northwestern third of the State, and between 2 and 10 in. over the remainder of the State.

There was some concern about pre-mature germination in winter wheat due to prolonged periods of warm temperatures, but no widespread incidences have been reported.

TENNESSEE: Temperatures averaged from 1 to 3° above normal in all but the Tennessee Valley where they averaged near or slightly below normal. Extremes were 19° in the east on 3rd and 66° reported at Memphis on 8th. Precipitation amounts were mostly less than 0.25 in. in the northeast. Traces were noted in the central and southeast while the west was dry.

TEXAS: Weak cold front combined slightly moist air, produced low clouds, drizzle sections Central, South Texas. Scattered light precipitation Coastal Plains latter part week. Temperatures warmed considerably influence high pressure system. End week, rain showers spread southwest Texas, upper level low pressure system moved east. Temperatures 4 to 7° above normal over much State. Near normal rainfall fell over the High, Low Plain, North Central Texas, Trans-Pecos.

Crops: Warmer weather much needed relief from late December record-breaking low temperatures. Land preparation progressed northern, central portions State. Wheat, oat fields continue show signs stress from cold weather, most ranges, pastures. Warmer temperatures allowed citrus harvest Rio Grande Valley progress rapidly. Cotton harvest continued High, Low Plains. Harvest remaining cotton complete week's end if warm, dry conditions continue. Small grains continue little or no growth across most State. Plains, dryland wheat hurt badly by freeze, not providing much grazing. Oat fields damaged heavily, extent loss unknown. Central Texas, wheat top growth killed; crop appears recovering. Oats Central Texas damaged more severely heavy losses expected. Neither oats, wheat providing much grazing. Major producing areas, wheat, oats need moisture begin recovery devastating freeze. Statewide, wheat conditon rated 58% of normal, compared with 69% last year. Current reported condition 1% excellent; 18% good; 61% fair; and 20% poor. Sugarcane harvest lower Rio Grande Valley continues, affects freeze, sugar levels dropping unharvested cane.

Cotton harvested 99%, 96% 1982, 96% average. Pecans harvested 97%, 97% 1982, 95% average.

Commercial vegetables: Warmer temperatures Rio Grande Valley. Vegetable growers proceed harvest. Most winter vegetables suffered freeze, no large reduction harvested acres. Yield, production expected reduced. Some replanting occurred; however, not common practice. Prices continue to rise. Salvage remaining citrus crop continues steady pace. Fresh market crop virtually over. Citrus salvaged going juice. Most processing plants 24-hour basis. Tree damage big concern; extent unknown. San Antonio-Winter Garden, onions, cabbage, broccoli, cauliflower, spinach, carrots heavily damaged freeze. Quality, quantity be reduced.

Range and livestock: Warmer temperatures relief to livestock. Cattle shown severe stress from cold temperatures. Shrinkage, some losses small calves experienced. Heavy supplemental kept cattle generally fair condition; hay stocks declining faster than normal. Wheat, oat fields providing little, no grazing. Necessary more hay fed. Plains, cattle moved feedlots compensate lack grazing. Statewide, more moisture needed bring pastures back.

UTAH: Precipitation first part of week. Accumulations light to moderate north central and northern mountains, zero to light rest of State. Minimum temperatures generally below normal except Dixie; maximums near normal.

Daily farm chores, care of livestock major activities. Cold weather stressing livestock on winter chores. Supplemental feeding most areas. Sorting, marketing, and shipping of apples, onions, and potatoes in storage continues.

VIRGINIA: Below normal temperatures during first portion of week with moderating temperatures by end. Temperatures averaged 1 to 3° below normal with lowest temperature recorded at Staunton, 0° in southern division. Daytime highs reached into 50's by end of period at most locations across State. Only a small amount of precipitation fell across State ranging from a trace to 0.06 at most locations except at Bristol in southwest division where 0.24 was recorded.

These cool, dry conditions improved topsoil moisture and increased days suitable for fieldwork. Livestock main chore. Feeding still necessary, calving improved with warmer temperatures. Some soybeans still being prepared for markets which should open within the next 2 weeks. Small grains still in good conditions.

WASHINGTON: Except for valleys on east side of Cascades, average temperatures climbed from well below normals during late December to above normals last week. West side of State near 10° warmer than normal. But to east, conditions varied from few degrees above normal through eastern valleys of Cascades to near 10° warmer near Idaho border. Warm,

nearly stationary high pressure system centered eastern Oregon-western Idaho caused warm conditions over State. Rainfall heavy in northwest, but closer to normals other areas of State.

Unseasonably warm weather, especially in west caused some rapid melting of mountain snowpack. This, combined with moderate rainfall resulted in considerable lowland flooding. In east, snow cover reduced from fields with runoff causing some soil erosion. Wheat crop may have suffered some freeze damage during recent cold spell in areas without snow cover. Fruit tree and grape pruning have started again with warmer weather. Livestock in good condition.

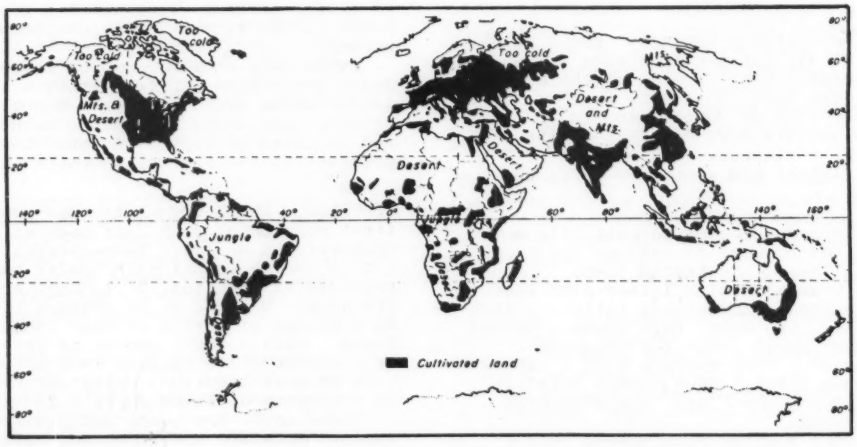
WEST VIRGINIA: Temperatures averaged 1 to 4° above normal for the entire State, with day time highs of 30's and 40's and night time lows in the 30's. The high temperature was 50° at Burlington and the low 8° at Green Bank. Precipitation averaged well below normal with some locations receiving only trace amounts. Largest rainfall 0.61 in. in Clay; the least none in Charles Town.

Soil moisture adequate to surplus. Days suitable for fieldwork averaged 1.1. Main activities: Feeding livestock and general maintenance. A lot of cattle lost due to falling on ice. Feed supplies adequate.

WISCONSIN: The week was mild and mainly dry except for some 1 to 2 in. snowfalls over southeast on the 8th. Daily high temperatures were mostly in the 20's or 30's and overnight lows generally in the teens. The weeks high temperatures was 46° recorded at both Lafarge and Port Edwards on the 5th. The cold spot was 4° at Lake Thompson on the 2nd.

WYOMING: Temperatures above average. Highs in 40's and 50's. Lowest minimum 15° below zero. Precipitation below normal. Most of State received none.

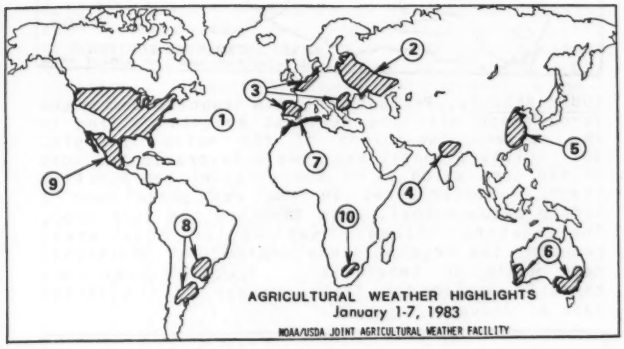
Winter wheat mostly good condition. Livestock mostly good condition. Supplemental feeding necessary due to snow cover. Warmer weather reducing stress.



Approximate cultivated land area of the world. [Courtesy U. S. Department of Agriculture, Foreign Agricultural Service.]

International Weather and Crop Summary

January 1 to 7



1. UNITED STATES ... A drastic warming trend across most of the Nation reduces snow cover, leaving winter grains more vulnerable to cold; produces localized snow-melt flooding in the Pacific Northwest; causes freeze-thaw heaving in some wheatlands; but reduces cold stress on livestock and favors outdoor activities.

2. WESTERN USSR ... Above-normal temperatures continue to cover the region. Most of the major winter wheat areas in the west and south lack a protective snow cover.

3. EUROPE ... Dry weather continues over winter grains in Spain. Moisture supplies improve over parts of northern and southeastern Europe.

4. SOUTH ASIA ... Additional precipitation benefits wheat in the filling stage. Seasonal rains in the south are ending.

5. EASTERN ASIA ... Dry and cool weather dominates most agricultural areas. Winter precipitation would benefit the north.

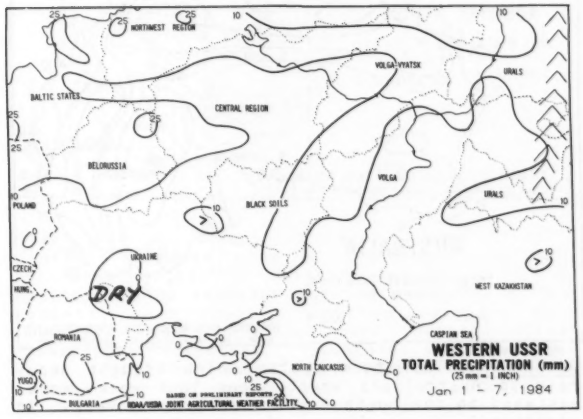
6. AUSTRALIA ... Sunny skies cover the wheat belt following early week rains in the east which delayed harvesting. Dry weather is needed to complete the wheat harvest. Abundant moisture is available for summer crops.

7. NORTHWESTERN AFRICA ... Showers benefit early winter grain growth in Algeria and Tunisia. Additional moisture would benefit winter grain areas in Morocco which are becoming dry.

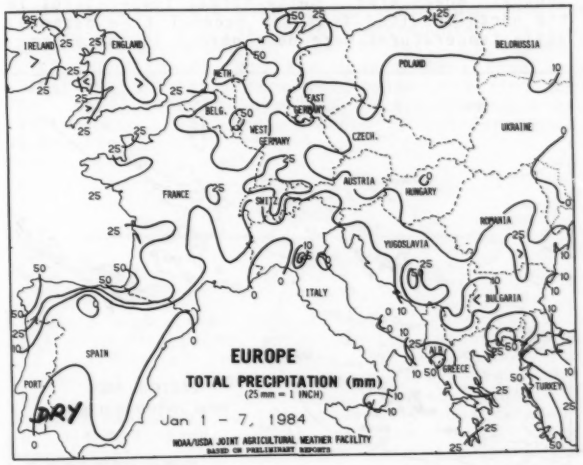
8. SOUTH AMERICA ... Substantial rain aids soybeans in Rio Grande do Sul as the early planted crop approaches the flowering period. Spotty rain falls elsewhere in Brazil's soybean belt. Widespread rain over Argentina's crop areas improves conditions for crops nearing the reproductive phase and second-crop soybean planting, but slows the wheat harvest.

9. MEXICO ... Widespread but mostly light rains interfer with some vegetable harvesting over the west coast. Warm weather could hasten citrus fruit spoilage in the northernmost orchards.

10. SOUTH AFRICA ... Favorable weather continues for most of the corn region, maintaining good yield prospects.

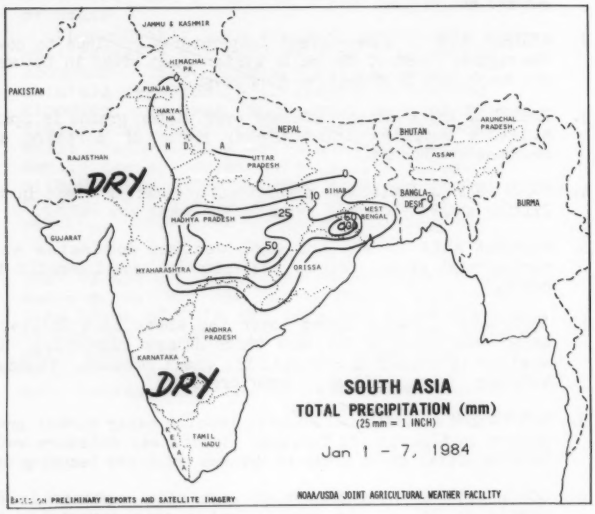


WESTERN USSR...Above-normal temperatures continued to cover most winter grain areas during the week, but a cooling trend by week's end dropped temperatures to more seasonal levels. Occasional snow during the week increased the snow cover in winter grain areas of the Central Region, Volga Vyatsk, and the northern Urals. Most of the precipitation which fell over the winter wheat belt occurred as rain, increasing moisture supplies. Winter wheat areas lack a protective snowcover, and the crop still remains highly vulnerable to winterkill in the event of a cold outbreak.

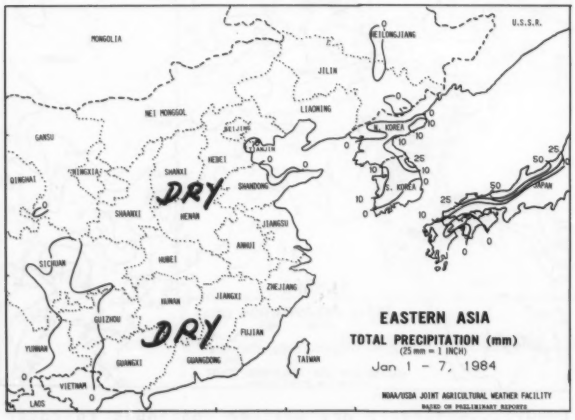


EUROPE...Generally dry weather continued to cover winter grains in the Iberian Peninsula. Although moisture supplies appear adequate for early growth, additional showers would be beneficial. Showers continued to cover winter grains in northwestern Europe, and above-normal temperatures allowed winter grains to slip out of dormancy in some areas. Although weekly temperatures were above normal over eastern Europe, temperatures were probably cold enough to keep winter grains dormant in most areas. In the southeast, generous

rains increased moisture supplies in Romania, Bulgaria, Greece, and western Turkey. Most winter grains over the region lack a protective snow cover.

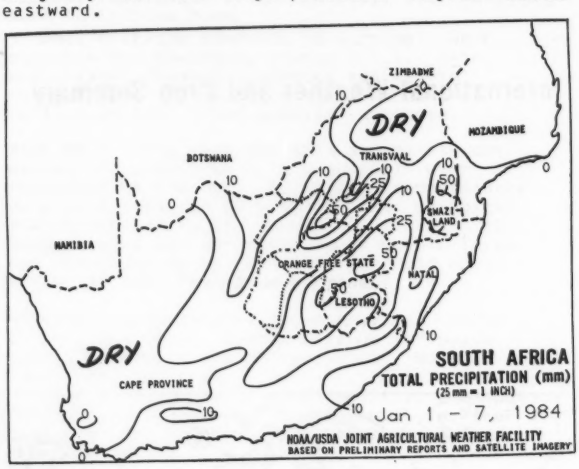


SOUTH ASIA...A seasonal change in the precipitation distribution increased showers in northern India and diminished rainfall in the south. Moderate rain, 25-65 mm, fell in Madhya Pradesh, benefiting wheat in the grain filling stage. Early in the week, a localized storm with heavy rain likely caused isolated damage to wheat and summer rice in West Bengal. Drier weather returned to the northern major wheat region from Punjab through Uttar Pradesh where last week's moderate rain aided wheat in the heading stage. However, this week the westerly flow pushed further to the south, producing showers in the southern wheat area. Below-normal temperatures in the north resulted from the general flow pattern, while temperatures were near normal in the south.

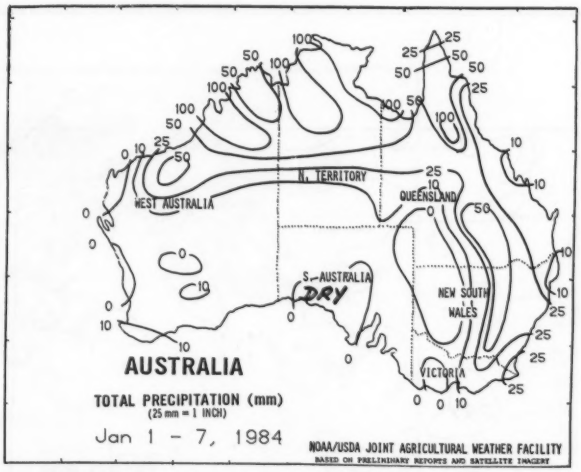


EASTERN ASIA...Virtually no precipitation fell in eastern China this week because of a dominating region of high pressure. By the middle of the week, cold air had pushed southward dropping temperatures to below normal south of the Yangtze Valley. Temperatures remained near normal in the winter wheat area. The winter wheat crop is in the dormant stage throughout the region, and winter precipitation would benefit spring growth.

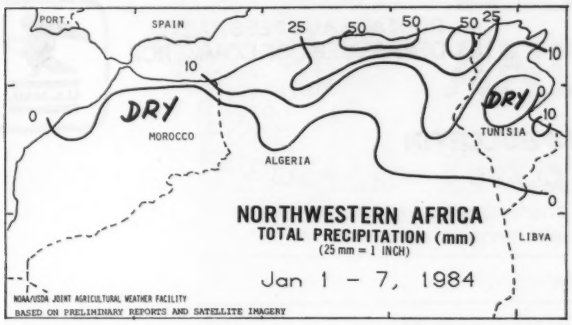
At the end of the week temperatures had moderated slightly as the high-pressure region moved eastward.



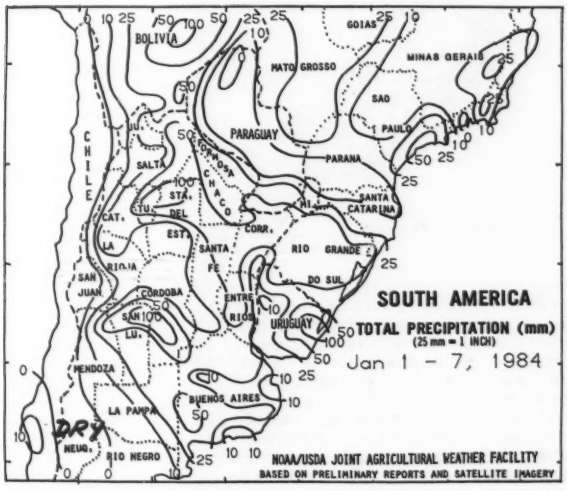
SOUTH AFRICA...Periods of rain continued in the corn region with the heaviest amounts falling in the eastern two-thirds of the Maize Triangle. Soil moisture conditions remain favorable for most of the crop which is in the critical reproductive stage. Temperatures in the east have been a little below normal, also favoring the corn crop. The western Triangle was cooler this week, reducing the crop moisture demand, but additional rain would be beneficial. South African corn normally enters the filling stage in the latter part of January.



AUSTRALIA...The storm system which brought heavy rain to Australia's wheat areas last week, moved eastward to the South Pacific early this week. An additional 25 to 50 mm of rain fell over crop areas of southeastern Queensland and eastern New South Wales before the storm finally passed from the continent. Sunny skies for much of the remainder of the week helped dry wheat fields and allowed resumption of harvest activities. Some quality reductions are likely in southern crop areas because of the recent wetness. Dry weather is needed during the next few weeks to complete the wheat harvest. Abundant moisture is available in the east for growth of cotton, sorghum, sunflowers, and other summer crops. The wetness in eastern crop areas may have hampered late planting of these crops.



NORTHWESTERN AFRICA...Timely rains fell on winter grains in northern Algeria and northern Tunisia. Rainfall amounts around 25 mm covered most areas, aiding emergence and benefiting early plant growth. Elsewhere, mostly dry weather continued to cover winter grain areas in Morocco, but additional showers are needed to ensure a good start to this year's growing season.



SOUTH AMERICA...Widespread rain covered Brazil's southern soybean area of Rio Grande do Sul, providing substantial moisture for the growth of earlier seeded soybeans and the emergence of the recently sown crop. Moisture supplies have improved considerably and will benefit initial flowering of soybeans; temperatures still averaged above normal for the week. Rainfall was spotty elsewhere in the soybean belt, but Mato Grosso do Sul received beneficial moisture for soybeans. In Argentina, rain fell over most crop areas early in the week, followed by warm, dry weather. Locally heavy rain (in excess of 75 mm) fell over central Cordoba and southwestern Buenos Aires. Much-improved moisture supplies will aid summer crop development, while a week of dry weather is needed to complete the wheat harvest. Reports indicate that about 70-75 percent of the second-crop soybeans are planted. Early seeded coarse grains, first-crop soybeans, and cotton are advancing into the reproductive phase of development. Temperatures are still averaging above normal, maintaining high crop moisture needs.

MEXICO...Subtropical moisture returned to much of the country and produced widespread but mostly light rains. West coast vegetable areas received about 10 mm of rain, which interferred with harvest and other field activities but improved soil moisture. A few spots had heavy rains, such as over 50 mm just south of Hermosillo and about 25 mm at Mazatlan. Generally warm weather over the northeast favored rapid harvesting of citrus in southern and central orchards, but could have hastened the spoilage of freeze-damaged fruit in northern districts.

National Weather Summary (continued from front cover)

SATURDAY...Somewhat cooler weather covered much of the Nation. Freezing temperatures reached into northern Mississippi and Alabama, but daytime highs continued warm over most of the Nation. Temperatures in the High Plains again rose into the fifties. Spotty areas of the intermountain region, the northern border of the Plains, the eastern Great Lakes region, and the Appalachians from West Virginia northward remained below freezing all day. Light rain or snow fell in the Northeast and light rain fell from central California to Washington.

(continued from p. 10)

adequate protection from freezing temperatures in most producing areas, except in the southern Plains and portions of the Pacific Northwest where some winterkill of late-planted stands is expected. Rain and ice delayed completion of seeding across the South. Wheat was in fair to mostly good condition in all producing areas as the month ended. Overwintering conditions were generally good from Kansas northward. Wheat was dormant in Oklahoma and producers in the western part of the State were concerned about possible winterkill of late-planted fields. Growth was limited by freezing temperatures in Texas; some burning of foliage was evident. Stands were in good condition in Montana. Snow cover was adequate and wind damage was minimal.

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